Task Force on Inflation Protection for Employment Pension Plans

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TASK FORCE ON INFLATION PROTECTION
FOR EMPLOYMENT PENSION PLANS

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VOLUME 2

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The Potential Impact Of Mandated Inflation Protection On Capital Markets

Keith P. Ambachtsheer
Keith P. Ambachtsheer &
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I STUDY SUMMARY AND CONCLUSIONS

1. Pension-related savings today finance about 1/3rd of Canada's investment needs and take up as much as 1/2 of the net new securities issued in Canada.
2. Barring major behavioral shifts and/or socio-political shocks to the system, pension-related savings appear destined to play an even greater role in our economy and capital markets over the next 5 years.
3. A growing net demand/net supply imbalance due to rapid pension savings-related growth in demand for Canadian equity investments is a distinct possibility unless the Federal 10% Foreign Investment Rule is relaxed.
4. Mandated inflation protection for employment pension plans could have two possible impacts on this basic scenario. One is a possible immediate impact. The other is a possible future impact.
5. The immediate impact arises from mandating a formula deemed unacceptable by private sector employers. Heavy, concentrated conversion by these employers to money purchase or Group RRSP arrangements would have negative implications for Canada's capital markets (especially stock markets). This is so because the asset mix preferences of individuals are much more conservative than those of corporate plan sponsors.
6. A Survey conducted as part of this Study suggests that plan sponsors and money managers would not make major changes to pension fund asset mixes if they stayed with their current (defined benefit) plans in an inflation protection-mandated regime. This would be so regardless of

whether the inflation protection formula was CPI-based or capital markets (eg TBill) return-based.

7. However, these responses were made in an environment where capital market returns had been extraordinarily high for five years running. Post October 19 responses would likely have reflected a higher degree of conservatism. An assessment of how plan sponsors might have reacted to two specific inflation protection formulas if they had been in-place during the high inflation 1973-1982 environment is made. The Study concludes that both formulas {CPI-2.5%} and {TBill-3.5%}, combined with a prolonged period of negative real returns in the capital markets, would probably have driven many private sector employers out of defined benefit plans in the 1970's. Such a development would have further depressed Canada's already poorly performing capital markets during that difficult period.

Our overall conclusion is that there is considerable risk to the Canadian capital markets if a mandated inflation scheme is deemed to be too onerous by sponsors of defined benefit plans(either immediately or during the next 'high inflation' era). The Task Force would be well advised to take these potential dangers into account as they decide on what their recommendations to government on mandated inflation protection are to be.

II ACCUMULATED PENSION SAVINGS AND WEALTH IN CANADA

A Where Do We Stand?

The generation of retirement income is an important motivator in personal savings decisions. Total Canadian savings in 1986 ran at about an $100 billion annual rate. About a third of this $100 billion can be related directly to some form of retirement savings flow. These flows, over the years, have led to sizable accumulations of wealth related to pensions. From a study of various government and private sources , and from some personal estimates, the following picture emerges[1]. (Endnotes and references appear at the end of the Report.)

B What Are The Numbers Telling Us?

Assuming national income growth for 1986 in the 6%-7% area, it is clear pension wealth is continuing to grow faster than national income (as it has for quite some time). In relation to wealth accumulations, non-RRSP flows have grown at 10%. The RRSP flow grew more like 20%. Thus RRSP assets are growing most rapidly in relative terms, although not yet in absolute terms.

Overall, while gross savings have been a relatively constant 20% of national income way back since the 1950's, pension savings as a proportion of total savings has risen steadily.....from 15% of the total in the 1960's, to 20% in the 1970's, to over 30% now.

In short, pension savings have played an increasingly important role in financing capital formation in Canada in the last three successive decades.

C The Composition Of Accumulated Retirement Savings

The investment policies of the three categories of retirement savings have differed materially over time, as Table 2.2 suggests. The Trusteed Pension Funds category has been further divided into 'Unrestricted' and 'Restricted' to reflect the fact the a number of large provincial and municipal funds have historically, while trusteed, been restricted to largely bond investments. We estimate the $150 billion total splits about $100 billion unrestricted and $50 billion restricted.

Equity-oriented investments include Canadian and foreign stocks, real estate, venture capital; debt-oriented investments include bonds, mortgages, cash-equivalent investments. The special non-marketable debt of the CPP and many of the large non-trusteed public sector plans (i.e. Federal civil servants, Ontario civil servants, Ontario teachers) has been separated from securitized debt which can be bought and sold in the capital markets. The asset class dollar values (in $ billions) are based on the overall values and the percentage breakdowns.

Table 2.2 suggests most of Canada's retirement savings flow over the years has gone into debt-oriented investments, much of it into government debt.

Most of the equity money has clearly come from the Trusteed Pension Funds-Unrestricted category, with most of it going into the common stock of Canadian-based companies[2].

The total market capitalization of Canadian-based companies is in the $350 billion area. However, the float (i.e. the shares not held in control blocks) is only 60% of the total. Out of the $68 billion in equity- oriented investments of the various retirement savings categories, most ($55 billion) is in the shares of Canadian-based companies. Thus pension funds own over $^1/_4$% of the widely-held shares of Canadian-based companies[3].

D Trusteed Pension Funds' Demand For New Investments And Supply

It is instructive to examine the relationship between the current net demand for equity-oriented and marketable debt-oriented investments by pension funds and their net supply through the capital markets. Estimating the 1986 net pension fund demands from TABLES 2.1 and 2.2, and the net available supplies of securities from the Bank of Canada Review, May 1987, the following picture emerges in Table 2.3 (rounded to the nearest $billion)[4]:

Pensions-related Canadian savings flows going into the various investment categories are sizable in relation to the funds demanded in these categories in Canada. In some cases, like stocks and bonds, net demand by pension funds represented well over 50% of the new securities offered in 1986. In the case of stocks, it approached almost 100%. That doesn't leave a lot of room for other classes of equity buyers!

To put the pensions-related savings flow back into a total perspective, total funds raised in 1986 were $86 billion ($50 billion for the private sector, $36 billion for the public sector) of which $22 billion was provided by non-residents. Of the remaining $64 billion financed in Canada, we have attributed $35 billion to pensions-related flows.

TABLE 2.1

ESTIMATED COMPONENTS OF THE 1986 CANADIAN RETIREMENT SAVINGS FLOW AND OF 1986 PENSION WEALTH ACCUMULATIONS ($ BILLIONS AT MARKET)

	1986 flow	1986 accum.
Trusteed Pension Funds	$15	$150
RRSPs	$10	$50
CPP, QPP, Non-Trusteed Government Employer Plans	$10	$100
Totals	$35	$300

TABLE 2.2

1986 ASSET MIX POLICIES OF THE THREE RETIREMENT SAVINGS CATEGORIES

	Equity-Oriented Investments		Debt-Oriented Investments (marketable)		Debt-Oriented Investments (non-marketable)	
	%	$	%	$	%	$
Trusteed Pension Funds-Unrestricted	50	50	50	50	0	0
Trusteed Pension Funds-Restricted	20	10	80	40	0	0
RRSPs	10	5	90	45	0	0
CPP, QPP, Non-Trusteed Government Pension Plans	3	3	7	7	90	90
Total Dollar Values ($ billions)		68		142		90

TABLE 2.3

ESTIMATED 1986 PENSION FUND NET DEMAND FOR...
AND NET SUPPLY OF STOCKS AND DEBT INSTRUMENTS IN CANADA

	Equity-Oriented Investments	Debt-Oriented Investments ([m]=marketable) ([nm]=nonmarketable)	Term Deposits
Trusteed Pension Funds- Unrestricted	$5	$5 [m]	-
Trusteed Pension Funds- Restricted	$1	$4 [m]	-
RRSPs	$1	$1 [m]	$8
CPP, QPP, Non-Trusteed	-	$1 [m]	-
Government Pension Plans	-	$9 [nm]	-
Total Pension-Related Net Demand	$7	$11 [m] $9 [nm]	$8
1986 Stock Issues Sold In Canada	$8	-	-
1986 Bond Issues Sold In Canada	-	$18	-
1986 Short Term Debt Sold In Canada	-	$20	-
1986 Mortgage Funds Raised In Canada	-	-	$18

III PENSION SAVINGS AND WEALTH INTO THE 1990'S

We commence by listing factors impacting the direction pensions-related savings flows and accumulations will take from here. We continue with the three flow categories of Trusteed Pension Funds, RRSPs, and CPP/QPP/NonTrusteed Government Pension Plans defined in Section II.

A Trusteed Pension Funds

These funds relate largely (95%) to defined benefit employment pension plans. The major factors influencing policy decisions involving these plans include a maturing and downsized workforce, pension reform, tax reform, new accounting rules, and the current funded status of most defined benefit plans. All five of these factors are generally pushing in the same direction: a slowing in the growth in this part of Canada's retirement system. Most of that slowdown will come from the 50% private sector component of this part of the system.

A sixth factor is some evidence that the Trusteed Pension Funds-Restricted category (see Table 2.2) is shifting its asset mix policy to look more like that of the Unrestricted category. Some shift in the allocation of future cashflows away from debt towards equity-oriented investments is implied. We now go on to examine the first five factors in more detail.

1. A Maturing And Downsized Workforce

This phenomenon is increasing the proportion of retireds to actives and increasing the average age of the actives in many plans. The result is a natural slowdown in the growth of pension liabilities and contributions and an acceleration in payouts.

2. Pension Reform

The improved minimum standards related to vesting, minimum employer contributions, coverage will mean higher plan costs for many employers....as will the associated heavier administrative burden. The inflation protection question is still outstanding, but it too will likely add to both expected costs and inflation risk for plan sponsors. A consequence of the new portability feature is growing leakage out of trusteed pension funds as departing employees exercise their option to transfer the accrued value of their pension benefit to a locked-in RRSP.

3. Tax Reform

Ottawa's new policy on retirement savings means all forms of savings (through defined benefit plans, savings plans, profit sharing plans, and RRSPs) are to receive integrated tax treatment. A consequence for employers is a further significant increase in the burden of administering defined benefit pension plans. Attempts to maximize RRSP contribution room could put a lid on increases in the basic benefit formula.

4. The New Accounting Rules

This factor is also seen by many plan sponsors as an added administrative burden. By others it is seen as a mechanism through which asset and liability volatility in the pension plan is now more directly and quickly transfered to the plan sponsor's main business.

5. Funded Status

The combination of conservative funding standards and unusually high pension fund real rates of return during the last 5 years have led to pension assets exceeding reasonable estimates of going-concern pension liabilities for many plans. The reduced need to contribute plus the current controversy over asset cushion ownership are leading many plan sponsors to a re-examination of their funding policy. An onerous inflation protection formula plus retroactivity could

lead to a significant number of defined benefit plan conversions to defined contribution plans and/or group RRSPs.

Some of these considerations are already evident in the cashflow numbers for trusteed pension funds for the last four years[5].

Table 3.1 makes the important point that there would have been very little growth in the system in the last two years but for the booking of capital gains on investments. Contributions have been virtually flat. Growth in investment income is now almost matched by growth in disbursements.

Barring (a) a collapse of stock and bond prices, and (b) a too onerous inflation protection formula to be applied retroactively, the pattern shown above is likely to continue into the 1990's. Pension reform will push contributions up. But transfers out due to the portability measure will push disbursements up too.

The upshot is that much of the defined benefit employment pension system could just grow in line with the general economy from here. This would be a radical change from the last 15 years when trusteed pension assets grew by a factor of 10 while national income has grown by a factor of only 5.

Only events (a) and/or (b) would lead to potentially material changes in the current equation. Event (a) could push contributions up dramatically as capital gains turned to capital losses. Event (b) could trigger a significant movement away from defined benefit plans. In this case, the reported flows might not change very much, but the composition of the underlying pension assets might change considerably. More on this below.

B RRSPs

RRSP growth has also been well in excess of national income growth, averaging about 20% per annum. It seems reasonable that this kind of growth will continue into the 1990's.

In 1984, 2.5 million Canadians contributed $5.6 billion into RRSPs, or an average of $2,200 per contributor. The number of contributors has been growing at 10% per annum. The amount they contribute has been growing at about 5% per annum. Investment income on the RRSP funds outstanding is 8%-9% per

annum. Assuming a redemption rate in the 3%-4% area, a 20% growth rate results[6].

The net effect of tax reform is difficult to gauge at this time. Contribution rate maximums for persons not members of employer pension plans will rise from the current $7,500 level to $15,500 by 1995. But maximums for many employer pension plan members will decrease below their current $3,500 ceiling as these ceilings receive the new integration treatment.

Pension reform will impact RRSP growth positively through the 2 year vesting and portability provisions. An eventual incremental $1 billion flow from the source into RRSPs is not unreasonable[7].

Finally, the collective RRSP asset mix has been trending from virtually 100% term deposits in the 1970's to increasing exposure to stocks and bonds through mutual funds and the pooled funds of other financial institutions. We characterize the current collective mix as 10%-10%-80%[8].

C CPP/QPP/Non-Trusteed Government Pension Plans

In one sense, the $10 billion net cashflow and $100 billion asset accumulation in the segment of the overall pension system (with the exception of QPP, $1+ billion flow and $10+ billion asset accumulation) is simply a matter of government book keeping. The various plans call for certain contribution rates. Contributions in excess of disbursements are immediately borrowed back by the government in question. Interest is paid on the borrowed money, but it too is borrowed back unless needed for pension disbursements. Meanwhile, pension disbursements are made according to formulas independent of the asset side of the pension balance sheet.

This situation would change considerably if Ontario decided to invest its portion of CPP funds and allowed its Public Service and Teachers plans to invest through the capital markets. Such a move could shift $3+ billion of the cashflow through the capital markets. If this money were invested as the Trusteed Pension Funds-Unrestricted (see Table 2.3) currently are, it would represent a significant new source of funds for Canadian equity and marketable debt financing[9].

D Retirement System Trends Into The 1990's: Capital Market Implications

In the basic scenario below, we assume the following:

1. The $10 billion Trusteed Pension Funds-Unrestricted cashflow will continue to grow at the recent 10% per annum (compared to the longer term 20%) and will be allocated 50%-50% between equity-oriented investments and marketable debt.
2. The $5 billion Trusteed Pension Funds-Restricted cashflow will also grow at 10% per annum, but the traditional 20%-80% allocation will shift to 30%-70%.
3. The $10 billion RRSP cashflow will grow at 20% per annum, but the current 10% equity-10% marketable debt-80% term deposits allocation will shift to 20%-20%-60%.
4. The $10 billion CPP/QPP/Non-Trusteed Government Employer Plans cashflow will grow 10% per annum, but the traditional 3%-7%-90% allocation (the 90% now being non-marketable government debt) will shift to 20%-20%-60%.

In Table 3.2 we compare the 1986 situation with the possible 1991 situation, given our assumptions above. In order to provide some 1991 'supply of stocks and debt instruments' benchmarks, we assigned an 8% growth rate to the 1986 levels. The 8% growth rate reflects an estimate of the nominal growth rate of the general economy over the next 5 years.

Not too much should be read into this kind of rough and ready exercise. The assumptions are many, and some are obviously debatable. Further, some of these flows will change prices which in turn will affect future flows. Nevertheless, the results point in the direction of continued growth in the role Canada's pension system will play in Canada's capital markets in the future.

Unless there are radical changes in asset mix policy from those assumed above, Canada's retirement savings programs could be a major contributor to a potential growing imbalance between demand and supply for equity capital in the country. While the Task Force has no mandate to comment on this possibility, it might consider some expression of concern about the continued insistence by

the Federal Government that 90% of pension assets be invested in Canada through the 10% Foreign Property Rule in the Income Tax Act.

E An Alternate Scenario: Implications

What happens if (a) there is a large-scale conversion from defined benefit plans to money purchase plans and (b) the government pension plans do not convert to normal capital markets-based investment programs? The former might happen if, on top of the pension and tax reform already on the books, the inflation protection formula turns out to be both onerous and retroactive. The latter might happen if the Rowan Task Force recommends a continuation of the status quo in Ontario, or, if it does recommend changes, they are not acted upon by the Government.

We assume that half of the Trusteed Pension Funds-Unrestricted convert to a money purchase formula. Further, we assume that the cashflow allocation for this money will now be 30%-30%-40% equity-bonds-term deposits. Government funds continue their current 3%-7%-90% practice. It turns out that, looking only at 1991 new money, the implications are not dramatic. The net new money available for equity investments is now $13 billion rather than $18 billion....but could still exceed the available supply of new equity securities in 1991.

But of course the dramatic implications are not to be found in shifts in net new money flows. If there are any, they will be found in shifts in the composition of existing assets. The conversion of half the Trusteed Pension Funds-Unrestricted component of the system to a 30%-30%-40% (equities-bonds--term deposits) mix within a relatively short time (like one or two years) could cause material disruptions in the capital markets.

A $20 billion shift is implied, out of stocks ($10 billion) and bonds ($10 billion), into term deposits. While much of the potential impact on the bond market would be arbitraged by non-pension capital markets participants, there is some question as to how quickly that might take place in the stock market. Even at today's high volumes, $10 billion represents almost 25 days of stock market trading. Without timely and sizable arbitrage, the potential impact of such a shift on Canadian stock prices could be significantly negative.

TABLE 3.1

TRUSTEED PENSION FUNDS CASHFLOWS 1983 - 1986
($ BILLIONS)

	1983	1984	1985	1986
Employee Contributions	$2.4	$2.6	$2.7	$2.7
Employer Contributions	$4.3	$4.1	$4.1	$4.4
	$6.7	$6.7	$6.8	$7.1
Investment Income	$6.9	$7.7	$8.9	$9.9
Net Capital Gains	$1.0	$1.0	$1.9	$4.3
	$7.9	$8.7	$10.8	$14.2
Gross Income	$14.6	$15.4	$17.6	$21.3
Disbursements	$3.9	$4.3	$5.5	$6.4
Net Income	$10.7	$11.1	$12.1	$14.9

TABLE 3.2

ESTIMATED 1991 PENSION FUND NET DEMAND FOR AND NET SUPPLY OF STOCKS AND DEBT INSTRUMENTS IN CANADA: BASIC SCENARIO
($ BILLIONS OF CURRENT DOLLARS)

	Equity-Owned Investments		Debt-Oriented Investments ([m] = marketable) ([nm] = nonmarketable)		Term Deposits	
	1986	1991	1986	1991	1986	1991
Trusteed Pension Funds- Unrestricted	$5	$8	$5 [m]	$8 [m]	-	-
Trusteed Pension Funds- Restricted	$1	$2	$4 [m]	$6 [m]		
RRSPs	$1	$5	$1 [m]	$5 [m]	$8	$15
CPP, QPP, Non-Trusteed	-	$3	$1 [m]	$3 [m]	-	-
Government Pension Plans	-	-	$9 [nm]	$10 [nm]	-	-
Total Pension-Related Net Demand	$7	$18	$11 [m]	$22 [m]	$8	$15
			$9 [nm]	$10 [nm]	-	-
Stock Issues Sold	$8	$12	-	-	-	-
Bond Issues Sold	-	-	$18	$26	-	-
Short Term Debt Sold	-	-	$20	$29	-	-
Mortgage Funds Raised	-	-	-	-	$18	$26

IV MANDATED INFLATION PROTECTION

A Two Ways To Go

Formal inflation protection formulas, from the perspective of asset mix policy, fall into one of two categories. They are either directly related to some external measure of inflation such as the Consumer Price Index, or indirectly through capital market-based return measures.

Pesando examines both types of formulas in great detail in his paper 'Assessment of Alternative Formulas For Delivering Inflation Protection' included in Volume 1 of the Research Studies. We focus here on the linkages between these formulas, their potential impact on pension fund asset mix, and through potential changes in asset mix, their potential impact on the capital markets.

In relation to our categorization of Sections I and II, we focus largely on the Trusteed Pension Funds category (both Unrestricted and Restricted). To the degree the non-trusteed government plans move to capital markets-based investment programs, this analysis is relevant for them as well.

B Some 'A Priori' Reasoning

Most of the pension liabilities backed by the assets categorized above are already inflation-sensitive to a significant degree. The majority relates to pension benefits calculated on the basis of average final earnings. Thus most pre-retirement pension accruals are inflation- sensitive. Also, the majority of plans already provide regular or semi- regular post retirement inflation-related updates to pensions in pay, making these pension obligations also practically, if not legally, inflation-sensitive.

Current asset mix policies have been established with these realities in mind. Our asset mix policy work has shown that, on a going-concern basis, equity-debt pension fund asset mix policies in the 70%-30% to 40%-60% can make sense, depending on the specifics of the pension plan.

A key question for this paper is the degree to which these policies might change in a mandated inflation protection environment. Plan sponsor

responses need to consider two key questions. The first is whether any extra costs associated with the inflation protection programme are to be offset by attempting to earn higher pension fund returns. Reaching for incremental pension fund returns would involve undertaking more investment risk....implying an increase in equity exposure. Such a decision might be easily reached against a background of now almost five years of very favorable pension fund investment experience.

A second plan sponsor question is how much incremental business risk the inflation protection formula has imposed on the plan sponsor. A related question is whether any such incremental risk should be absorbed by making pension fund returns more inflation-sensitive. In the absence of inflation-indexed bonds, such a decision would imply increasing the TBill (or equivalent) exposure of the pension fund regardless of whether the inflation-protection formula was directly CPI-based or TBill returns-based. So 'a priori' reasoning suggests a response range that might range from (a) increase equity exposure (probably at the expense of bond exposure) to (b) increase T-Bill exposure (probably also at the expense of bond exposure). But to the degree the current asset mix policy has already contemplated (along with a myriad of other material policy considerations) the provision of inflation protection on an informal/voluntary basis, little change in asset mix policy might be forthcoming in the current bullish capital market environment by making that protection obligatory.

V THE SURVEY

A Survey Design

The most direct way of finding out what plan sponsors and their money managers would do if a certain type of inflation protection were mandated is to ask them. We designed somewhat differing surveys for large plan sponsors who we judged would have an opinion on the subject and for money managers who would likely make such a judgement for smaller plan sponsors.

A total of 33 questionaires were sent out to plan sponsors, most with large work forces on the Province of Ontario. They were asked what kind of

pension plan they had, what their current inflation protection policy is, the dollar value of their pension fund, the percentages managed internally and externally, their current asset mix, and how that asset mix might change with inflation protection. On a separate page, they were invited to share any thoughts on inflation protection they might have with the Task Force. A total of 21 responses were received relating to $32 billion of pension assets.

A total of 35 questionaires were sent out to money managers managing the bulk of Canada's externally managed pension assets. They were asked the dollar value of the pension assets they manage and over how much of that they had the discretion to set the asset mix. Then they too were asked their current asset mix, and how that asset mix might change with inflation protection. Again, the 'your own thoughts' page was provided. A total of 18 responses were received relating to $38 billion of pension assets.

B Survey Responses

1. Plan Design (Plan Sponsors only)

	#
Defined Benefit-Final Average Earnings	18
Defined Benefit-Career Average	2
Combined Defined Benefit/Defined Contribution	1
Total	21

2. Current Inflation Protection Policy (Plan Sponsor only)

	#
Formal	3
Ad Hoc-Regular	13
Ad Hoc-Occasional	5
No Inflation Updates	0
Total	21

3. Pension Fund Market Value

	Plan Sponsors	mgd intern.	Money Managers	full discr.
	#	%	#	%
Over $1 Billion	9	75	15	80
$500 Million to $1 Billion	6	20	2	60
$100 Million to $500 Million	6	5	1	40
Total	21		18	

4. Pension Fund Asset Mix

	Plan Sponsors Ave. %	Hi %	Lo %	Money Managers Ave. %	Hi %	Lo %
Stocks	46	57	38	50	60	25
Real Estate	5	10	0	2	10	0
Other	2	5	0	1	5	0
Total Equity-Oriented	53			53		
Bonds	32	39	19	37	65	10
Mortgages	5	19	0	2	20	0
Cash-Equivalents	10	17	2	8	12	2
Total Debt-Oriented	47			47		

5. Asset Mix Responses To Mandatory Inflation Protection

	Plan Sponsors	Money Managers
CPI-Based Inflation Protection		
Would not change asset mix policy	16	14
Would increase equity investments	3	2
Would increase cash-equivalents	2	2
TBill Return-Based Inflation Protection		
Would not change asset mix policy	16	14
Would increase equity investments	1	1
Would increase cash-equivalents	4	3

6. The Use of Inflation-Indexed Bonds

	Plan Sponsors Ave. %	Hi %	Lo %	Money Managers Ave. %	Hi %	Lo %
Real rate required to be competitive	4.5	5	3.5	3.9	5	2
		#			#	
Would use if available at that rate		15 out of 21			11 out of 18	

C Survey Response Interpretation

Neither plan sponsors nor their money managers say they would make major changes to asset mix policy with the implementation of mandated inflation protection, whether it was CPI-based or TBill return-based.

Most would do nothing at all with either type of formula. Of those who would make changes (9 out of 39 or 23%), they are as likely to be in the

direction of higher equity exposure (the choice of 5 of the 9) as in the direction of more short term debt security exposure if the formula is CPI-based. Shifts of 10 percentage points were typically contemplated with bonds the source of funds.

Only if the formula is explicitly TBill return-linked would those who would change (again, 9 out 39) largely (7 out of the 9) move the mix towards TBills. In these cases again, shifts of 10 percentage points were contemplated, with bonds being the source of funds.

Generally then, mandated inflation protection could lead to the sale of bond positions up to 10% of the total fund in value, of 20% of trusteed pension assets. Taken over the $100 billion 'Unrestricted' component, a shift in the $2 billion area is implied. A shift of this magnitude should be accomodated by the Canadian bond market ($18 billion in new issues alone sold in 1986) without a material increase in the spread between long bonds and TBills.

D What Else Plan Sponsors And Money Managers Said

We provided Survey participants with a blank page to jot down any thoughts they might have for the Task Force which were not captured by their earlier responses. We also asked four pension investment advisors who do not actually manage pension assets for their comments. Below is a summary of what respondents said. We make no further comment on respondent comments.

(i) Plan Sponsors

1. worry about mandated inflation protection, along with other pension and tax reform measures affecting defined benefit plans is too much for us: we're converting to a money purchase plan
2. inflation protection efforts misdirected because defined benefit plan members (only 40% of work force) already get 'ad hoc' updates
3. mandatory inflation protection means legislating Ontario employers into a competitive disadvantage situation
4. only governments in a position to guarantee inflation protection

5. any acceptable formula must keep risk implications for the employer in mind....and must not be retroactive (we've already provided protection 'ad hoc' and retirees know that we will continue this practice as long as business and capital markets conditions permit)
6. we're already investing on the assumption that the plan will provide inflation protection on a 'best efforts' basis
7. any formula where pensioners would participate in pension fund results would imply a radical change in our pension arrangements....if we could no longer earn any investment risk premium while at the same time we would be expected to continue to guarantee minimum benefits, we would go to a low risk investment policy and reduce benefits

(ii) Money Managers

1. don't have a fixation about the existing surpluses...they come and go, remember the 1970's!
2. would view the issuance of inflation-indexed bonds as a signal the government is no longer prepared to fight inflation
3. mandatory inflation protection will mean further pressure on us to increase pension fund returns
4. don't tie the inflation protection formula to capital markets returns, sponsors will likely be providing inflation updates if real returns are negative anyways....also, pensioners will never understand such formulas and will be suspicious of them
5. we're already investing on the assumption the plan will be providing reasonable inflation protection

(iii) Pension Advisors

1. don't tie inflation protection formula to capital markets returns
2. don't mandate retroactively....reaction by plan sponsors will be very negative....most have already done their bit and will continue to do so unless governments change the rules of the game

3. current asset mix policies already anticipate providing inflation protection on a reasonable basis
4. most current asset mix policies already imply the acceptance of significant 'basis' risk relative to pension liabilities, for these, mandated inflation protection should make little difference....except that if through formal mandating the actuary places a higher value on the accrued liabilities, the sponsor's risk tolerance might decline, moving the desired asset mix towards a higher TBill content
5. if mandated inflation protection is to be capital markets return-related there are interesting implications for pension fund governance....pensioners now share directly in investment risk and must be represented in the asset mix policy decision process
6. there is no link between 'surplus' and inflation protection and the Task Force should firmly sever the artificial link the Government has created between the two before making its recommendations

VI WHAT IF THIS WAS 1977 INSTEAD OF 1987......

A A Tale Of Three Periods

Recent history (defined in order to be consistent with the Pesando paper to be 1965 to 1986) can be conveniently subdivided into three sub-periods based on inflation experience. Inflation was moderate (3.6% p.a.) but rising during the 1965 to 1972 period, it was high (9.7% p.a.) during the 1973 to 1982 period, and it was moderate (4.6% p.a.) and falling during the 1983 to 1986 period.

It is instructive to relate typical pension fund investment results to those of a 100% T-Bill policy in a mandated inflation protection situation. Generally, the higher the pension fund returns earned, the lower contributions need be to support a given benefit formula. The lower the returns, the higher the contribution rate required to support a given level of benefits.

With a mandated inflation protection formula, total return is split into a pensioner component and a plan component. We examine two formulas below. In the first, {CPI-2.5%}, the pensioner is paid the first CPI-2.5% of return, the

plan keeps the residual. In the second, {TBill- 3.5%}, the pensioner is paid the TBill-3.5% of return as the inflation update. The plan keeps the residual.

In two subsequent tables we examine how both pensioners and the plan fared with these two possible formulas in the three types of inflationary environments defined above. Table 6.1 focuses on the pensioner. It indicates the purchasing power loss in the three time periods with no inflation protection, and with the CPI-related and TBill-related formulas.[10]

Table 6.1 shows either formula would have done the job when they were really needed: in the 'High Inflation' environment. There is a caveat, however. Within the 'High Inflation' period, the {CPI-2.5%} formula provided more stable inflation protection. The {TBills-3.5%} formula did not provide enough protection early in the period and too much towards the end. This anomoly continues in the 'Moderate/Falling Inflation' environment, as the TBill formula provided in excess of 100% inflation protection.

Table 6.2 examines how the plan did (i.e. how much residual return it earned after paying the inflation update) in the three periods defined with two possible investment policies: the normal asset mix policy used by Trusteed Pension Funds-Unrestricted (as captured by median total fund performance in the PFA/SEI sample) and a 100% TBill policy. As before, the inflation updates are calculated according to the {CPI-2.5} and {TBills-3.5%} formulas.

B The Message Of Table 6.2

Table 6.2 makes the important point that normal asset mix policies are likely to provide plans with more residual returns than a 100% TBill policy would as long as the inflation rate is moderate. Indeed, as the 1983-1986 period shows, the incremental return gains can be very significant.

But there will likely not be any incremental return gains from this policy during high inflation periods. Indeed, the 100% TBill policy is likely to outperform the normal pension fund asset mix policy during such periods. When such a period lasts 10 years as the last one did (1973-1982), the consequences of holding normal asset mixes and having to provide pensioner inflation protection can become very painful for sponsors of defined benefit pension plans.

Thus while the Survey responses point to an 80% continuation of current asset mix policies with either CPI-based or TBill-based inflation protection formulas, such views would likely change if the economy were hit with another bout of prolonged high inflation rates. And the impact of any material move by pension funds away from bonds and stocks towards TBills (or converting the plan away fron a defined contribution formula) in these circumstances would be quite predictable.

Prices in both the stock and bond markets would decline. To the degree other market participants here and in other markets were attempting to do the same thing, prices might well decline precipitously. Avoiding a replay of the 1973-1982 high inflation period is crucial to the continued financial health of Canada's retirement system. But if another such period were to occur with our employment pension plans now forced to provide a high level of inflation protection, capital markets experience would likely be even worse than it was during the 1973-1982 'High Inflation' period.

The conclusion must be that mandated inflation protection will increase the riskiness of Canada's stock and bond markets.

TABLE 6.1

PURCHASING POWER LOSS WITH TWO POSSIBLE INFLATION PROTECTION FORMULAS

Inflation Experience	No Protection	{CPI-2.5%}	{TBills-3.5%}
Moderate/Rising (1965-1972)	-25%	-18%	-16%
High (1973-1982)	-60%	-22%	-25%
Moderate/Falling (1983-1986)	-16%	-8%	+13%

TABLE 6.2

TYPICAL PENSION PLAN RESIDUAL RETURN EXPERIENCE WITH.... TWO POSSIBLE INFLATION PROTECTION FORMULAS, TWO POSSIBLE ASSET MIXES.... IN THREE TIME PERIODS

	{CPI-2.5%} Average Annual Residual Returns		{TBILL-3.5%} Average Annual Residual Returns	
Inflation Experience	Normal Asset Mix	100% TBill Asset Mix	Normal Asset Mix	100% TBill Asset Mix
Moderate/Rising (1965-1972)	4.8%	3.6%	4.6%	3.5%
High (1973-1982)	1.9%	3.4%	1.8%	3.5%
Moderate/Falling (1983-1986)	14.3%	8.1%	9.7%	3.5%

VII CONCLUDING COMMENTS

Pensions-related savings play a major role in financing (about 1/3rd of) Canada's investment needs today. The accumulation of past pensions-related savings flows already represents a major claim ($300 billion) on future national income through existing equity-oriented and debt-oriented investments.

Barring major behavioral shifts or socio-political shocks to the system, pensions-related savings appear destined to play an even greater role in our capital markets and economy over the next five years. Indeed, we identified a growing net demand/net supply imbalance in the Canadian equity sector as a distinct possibility.

Mandated inflation protection for employment pension plans could have two possible impacts on this basic outlook. One is an immediate impact. The other is a future impact.

The immediate impact arises from the adoption of an inflation protection formula deemed to be unacceptable by a majority of employers. A mass conversion by employers to money purchase or Group RRSP arrangements would have seriously negative implications for Canada's capital markets (especially stock markets). This is so because the asset mix preferences of individuals are considerably more conservative than those of corporate plan sponsors.

Even if a recommended inflation protection formula does not lead to an immediate reaction by the majority of plan sponsors, there could still well be one during the next 'High Inflation' environment. For example, average annual inflation updates during the 1973-1982 period would have been over 7% per annum with either a {CPI-2.5%} or a {TBills-3.5%}. Meanwhile, the asset mix policies plan sponsors feel they need to help pay for defined benefit plans produced generally poor results during this same 1973-1982 period. Instead of earning the expected long term 4% per annum in real terms, the 10 year realization for the median fund was more like -1.5% per annum.

It is our assessment that mandatory formulas like {CPI-2.5%} or even {TBills-3.5%} would bring an effective end to defined benefit pension plans (at least in the private sector) during the next extended period of 'High Inflation'. It is difficult to visualize the continuation of this type of plan with mandated inflation protection that did not either have an inflation cap or some other

form of relief in the 'High Inflation' periods as characterized by the 1973-1982 period.

NOTES AND REFERENCES

1. Statistics Canada publications used in the preparation of this Study include various issues of Financial Institutions, Quarterly Estimates Of Trusteed Pension Funds, and Revenue Canada Taxation Statistics. Issues of The Bank of Canada's Review were also used extensively.

2. Sources for Table 2.2 are those referenced in [1] above, as well as back issues of PFA performance measurement reports, and a Study titled The Impact Of The Investment Of Public Sector Pension Funds On The Canadian Capital Markets by John Bossons and John Todd, June 1987. This Study was prepared for The Task Force on the Investment of Public Sector Pension Funds.

3. From information provided by the Toronto Stock Exchange.

4. Assembled from the sources referenced in 1. 77 and 2. above.

5. Calculated from the data presented in the Statistics Canada publication Quarterly Estimates Of Trusteed Pension Funds. Each year is in fact the last quarter of the previous year and the first three quarters of the subsequent year.

6. Basic source is the 1984 issue of the Statistics Canada publication Revenue Canada Taxation Statistics.

7. While \$1 billion might seem like a lot of money, the going-concern value of pension liabilities in the employment retirement system is well over \$100 billion, making such annual 'leakage' well under 1% of outstanding pension debt.

8. The Financial Institutions publication breaks RRSP assets down by institution. The proportion held by mutual funds and the segregated funds of insurance companies has been on the rise in recent years. It was 11% at the beginning of 1983 and had reached 16% by the 3rd quarter of 1986, for example.

9. The recommendations of The Task Force on the Investment of Public Sector Pension Funds, chaired by Mr. Malcolm Rowan, are to be presented to Ontario Treasurer Robert Nixon by the end of September 1987.

10. The results in Table 6.1 come directly from Table 4.1 (p.87) and Table 4.2 (p.90) of the referenced Pesando paper, with the year 1986 added by the author. The results displayed in Table 6.2 were calculated by the author using Table 5.1 (p.95) and Table 3.1 (p.83) of the Pesando paper as the basis.

Financial Instruments that may Assist in the Provision of Inflation Protection

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CONTENTS

Financial Instruments that may Assist in the Provision of Inflation Protection

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I INTRODUCTION

Will plan sponsors be able to finance mandatory inflation protection without a significant increase in their exposure to risk? This is one of the most frequently asked questions in the on-going debate about mandatory inflation protection. Clearly, the answer will depend, in part, on the specifics of the inflation protection initiative. However, academics and practitioners now agree that the availability of indexed financial instruments would enable plan sponsors to shed investment risk even if pensions were fully protected from inflation. For this reason, it is instructive to review both the theoretical advantages of indexed financial instruments, as well as the actual use of such instruments in other countries. This is the purpose of the present report.

To place the potential contribution of indexed financial instruments in perspective, we first review the risk-return features of existing financial assets. We then examine the potential role of index bonds, as well as index-linked mortgages.

II HEDGING INFLATION PROTECTION WITH CONVENTIONAL FINANCIAL INSTRUMENTS

A Inflation Risk is not Diversifiable

In general, pension fund managers -- like other investors -- must make investment decisions subject to the risk-return tradeoffs available in the market place. If a portfolio is well-diversified, the fund manager can increase its expected real return only by assuming additional investment risk. A diversified portfolio of stocks, for example, is likely to provide a higher real return, over the long-run, than a portfolio comprised exclusively of short-term securities, like Treasury bills. Over the period 1925 to 1985, for example, investment in a diversified portfolio of stocks in Canada has yielded a real return in excess of 7 per cent, while a portfolio of 90-day Treasury bills has provided a real return of about one per cent. On the other hand, the annual variation in the real return to the portfolio of stocks is far greater, indicating that stocks represent a far riskier investment.[1]

In analyzing risk-return tradeoffs, one can usefully distinguish between expected or ex ante real returns and realized or ex post real returns. In general, a riskier portfolio is likely to provide a higher ex ante real return. Over the long run, this higher ex ante real return should correspond to a higher ex post real return. At the end of any given year, the ex post real return on the riskier portfolio may be greater than, equal to, or less than the observed real return on a low-risk portfolio, such as a portfolio of 90-day Treasury bills. The divergence between the ex ante and the ex post real return on a portfolio may be termed the 'unanticipated' real return on the portfolio. Of particular concern in the present context is the extent to which unanticipated changes in the rate of inflation produce unanticipated movements in the real return on alternative investment portfolios.

To see this point, consider first the case where a plan sponsor has set up a pension fund reserve for inactive workers (i.e., for terminated vested workers and for retired workers). Suppose, in addition, that the pension benefits of these inactive workers are frozen in nominal terms; that is, the pensions of inactive workers receive no inflation updates. If the plan sponsor chooses to fund this reserve by investing in fixed-income securities which produce a series

of cash flows that match the anticipated pension payouts, the plan sponsor will be unaffected by an unanticipated change in the rate of inflation. If the rate of inflation unexpectedly rises, the real value of the stream of incoming cash flows will decline, but the real value of the stream of promised pension payments will decline by an equivalent amount. The plan sponsor will have 'immunized' the pension fund reserve from unanticipated changes in the rate of inflation, and -- more generally -- from unanticipated changes in the nominal rate of interest.

Consider now a second case, in which the plan sponsor sets up a pension fund reserve for inactive workers. In this case, however, suppose that the pension benefits of the inactive workers are fixed in real terms; that is, the pensions of these inactive workers are adjusted by the full amount of future inflation. If the plan sponsor chose to fund this pension fund reserve by again investing in fixed-income securities, the plan sponsor would be exposed to inflation risk. An unanticipated increase in the rate of inflation would lower the real value of the incoming cash flows, but would leave unchanged the real value of the stream of promised pension payments. An unanticipated rise in the rate of inflation (relative to the inflation premium contained in the prevailing level of nominal interest rates) would impose a loss on the plan sponsor. Conversely, an unanticipated decline in the rate of inflation would result in a gain to the plan sponsor.[2]

An unanticipated increase in the rate of inflation will also depress the real return on a diversified portfolio of equities, as shown by Pesando.[3] Further, this relationship is stronger in the post World War II period than in the full historical data. Thus the basic result is unchanged if the pension fund is invested primarily in equities. If the pension benefits of the inactive workers are fixed in real terms, the plan sponsor -- on average -- will find that the real value of plan assets declines relative to the real value of plan liabilities if there is an unanticipated rise in the inflation rate.

If the plan sponsor wished to immunize this pension fund reserve to the maximum extent possible, the plan sponsor would invest in a portfolio of very short-term securities such as Treasury bills. This portfolio provides the most stable real return, and would be the least affected by an unanticipated increase in the rate of inflation. There is, of course, a cost to this investment strategy.

Historically, the real return provided by a portfolio of Treasury bills has averaged less than one per cent in Canada. This result is consistent with the fact that Treasury bills represent a low-risk asset, and hence are priced by the market to yield a low expected real return. By contrast, for example, the real return on a diversified portfolio of stocks has produced an average real return in excess of 7 per cent. Yet stocks, as recent events have confirmed, represent a far riskier investment. If the plan sponsor chose to hedge the real pension liabilities of the inactives by investing in Treasury bills, the plan sponsor would minimize the exposure to the risk of unanticipated inflation. The opportunity cost of doing so, however, would be the much lower real return on a portfolio of Treasury bills relative to the expected real return on a portfolio of long-term bonds and/or equities.[4]

To sum up, a plan sponsor who wished to hedge a pension fund reserve established for inactives, whose pensions receive full inflation protection, would do so by investing in very short-term bonds such as Treasury bills. This result is inherently 'awkward', since the long-term pension liability is hedged by a very short-term asset. Ideally, the plan sponsor would wish to be able to hedge the long-term pension liability by investing in a long-term asset. By doing so, the sponsor would earn the higher real return associated with investing in a long-term asset. As discussed later in this study, an index bond or mortgage, in which the real return is fixed in advance <u>if the bond or mortgage is held to maturity</u>, is such an instrument.

What merits emphasis in the preceding discussion is that pension fund managers might wish to diversify away the risk of inflation surprises, just as they diversify away other sources of risk. Unfortunately, given the existing range of financial instruments, the risk of unanticipated inflation appears to be non-diversifiable. Pesando and Rea conclude:[5]

> there currently exists no financial instrument whose real return can be reasonably presumed to be unaffected by either expected or unexpected inflation. (page 59)

With conventional financial instruments, it is not possible for a pension fund manager to achieve the objective of fully hedging the risk of unanticipated inflation. The desire of pension fund managers to avoid the risk of unanticipated inflation exists, of course, in the absence of mandatory inflation protection.

If inflation protection is mandated, the adverse impact of unanticipated inflation will be intensified, and hence the desire to hedge this risk is likely to become more pressing.

Finally, the above discussion of inflation risk and conventional investment instruments has taken place in the context of a pension fund reserve set up for inactive employees. For pension fund reserves for still active workers, additional issues merit note. First, sponsors are likely to view the still accruing pension benefits of active employees as having a substantial real component. This is apparent in final earnings plans, to the extent that salaries tend (at least) to keep pace with inflation. It is also true in flat benefit and career average plans, to the extent that benefit formulas are periodically enriched over time, to offset the eroding impact of inflation. In pension fund reserves for still active workers, plan sponsors will find that fixed-income securities are not an adequate hedge against the risk of unanticipated inflation. In these reserves, which have a long investment horizon, sponsors are likely to find equity investments to be attractive. Plan sponsors are likely to be prepared to assume more risk in anticipation, over the long run, of higher real returns.[6] Short-term securities, such as Treasury bills, are likely to be deemed less attractive. The low expected real returns on Treasury bills, especially when compounded over a long investment horizon, make Treasury bills less attractive, in spite of their low risk.

B Investment Portfolios Held by Pension Funds

Data on the allocation of pension fund assets, as reported by the Financial Executives Institute of Canada, are reported in Table 1, for the years 1978, 1980 and 1982. These figures indicate that about one-third of the book value of pension fund domestic assets is invested in bonds, and that about one-third is invested equities. The remainder of domestic assets consists primarily of mortgages together with cash and short-term securities. Foreign assets represent about 7 per cent of total domestic assets.

III INDEX BONDS

A Theory

The preceding analysis suggests that plan sponsors might wish to hedge against unanticipated inflation. This is especially so if there exists a pension fund reserve set up for inactives, and if the pension liabilities of the inactives have a substantial real component. Mandatory inflation protection could, of course, create such a situation, depending upon the exact nature of the inflation protection formula.

It is now well known that a plan sponsor could hedge a fully indexed pension liability by investing in an index bond. An index bond would provide the investor with a certain real return, if held to maturity, independent of the rate of inflation. Because an index bond eliminates inflation risk for the investor, one would expect the real interest rate on an index bond to be less than the real interest rate on a conventional bond that is otherwise identical. However, since the price of the index bond will fluctuate with fluctuations in the real rate of interest, those who invest in index bonds bear real interest rate risk. For this reason, one would expect the real interest rate on an index bond to be: (1) <u>less</u> than the <u>expected</u> real interest rate on an otherwise identical conventional bond and (2) <u>greater</u> than the real interest rate on short-term securities such as Treasury bills, since the latter do not expose the investor to real interest rate risk. Plan sponsors who have long-term pension liabilities, fully protected from inflation, are well suited to bearing the real interest rate risk associated with a long-term index bond. If the maturity of the index bond matches the maturity of the pension liability, the sponsor is immunized from fluctuations in the real interest rate. This is directly analogous to the case in which the plan sponsor hedges a purely nominal pension liability with a conventional bond of the same maturity. Because plan sponsors with <u>real</u> pension liabilities are well suited to bearing this real interest rate risk, plan sponsors could earn the higher real interest rate provided by long-term index bonds, relative to the real interest rate that could be anticipated on a portfolio of short-term Treasury bills.

There are two distinct ways that an index bond could be designed. These are both illustrated in Table 2. Under option one, the index bond has an annual coupon rate of 3 per cent, which is the real return on the bond if it is held to maturity. The coupon is adjusted upward each year to keep pace with inflation. The principal is updated each year for inflation, and the updated principal is repaid to the lender at maturity. Under option two, the bond pays an annual coupon equal to the real interest rate plus the full adjustment to the principal for inflation. At maturity, only the par value of the bond is paid to the investor. In effect, option two mimics the payment schedule of a conventional bond, where the investor is compensated annually for the anticipated erosion in the real value of the principal of the loan.

Index bonds exist in the United Kingdom, where they have been introduced by the Government. No private firms have issued index bonds, as is the case in North America. This raises the important question of why no private firms have issued index bonds. As previously noted, economic analysis indicates that investors would be willing to hold index bonds at a lower real interest rate than the expected real interest rate on otherwise identical conventional bonds. For the borrower, this means that the cost of issuing index bonds should be less than the cost of issuing conventional bonds, assuming that investors do not systematically underestimate the future rate of inflation.

The theoretical advantages of index bonds are, perhaps, best substantiated by the fact that they are supported by economists with views as diverse as those of James Tobin and Milton Friedman. Still, index bonds do not exist in North America. This fact inhibits the use of index bonds in the immediate future to help finance mandatory inflation protection. Below, we review the experience with index bonds in other countries, as these may provide lessons for Canada over the long run. If foreign experiences suggest that index bonds are a feasible instrument that might assist in the provision of inflation protected pensions, the Task Force might want to recommend government initiatives to either encourage the private issuing of index bonds or the issuing of index bonds by the government itself.

B Foreign Experience

Brazil and Israel

In both Brazil and Israel, index bonds were introduced in periods in which legal interest rate ceilings precluded alternative market responses to high inflation rates.[7] In Brazil, inflation reached 100 per cent in 1964. In Israel, inflation of over 100 per cent was the norm through the early 1980s. Thus, in both countries, index bonds were introduced in response to hyper-inflation. In Israel, as noted by Stanley Fischer:[8]

> the issue of indexed bonds was intended also to provide pension funds with assets that would enable them to pay indexed pensions.

Thus, while hyper-inflation may have been the main reason for the introduction of the index bonds in Israel and Brazil, the provision of stable real retirement incomes was a subsidiary motivation, at least for Israel.

Great Britain

Of potentially more interest for policy makers in Canada is the index bond experience of Great Britain. The first index bonds ('index-linked gilts') were issued on March 27, 1981, following the recommendations of the Wilson Committee. The Wilson Committee recommended that the government issue index bonds, 'given the importance of pension funds as major investors in gilts and given their particular need to provide pensions based on earnings.'[9] Thus the rationale for issuing index bonds was based on the existence of final-pay defined benefit pension plans, rather than on the particular needs created by pensions which are indexed to inflation during the post-retirement period.

There is, however, an important difference between pre-retirement indexation (final pay plans) and post-retirement indexation. If unanticipated wage inflation increases costs in final pay plans, the employer may be in a position to shift accelerating costs (in part) back to the active employees. This could be accomplished, for example, by granting lower wage increases. This fact helps explain the 'puzzle' of why employers are willing to provide final pay

plans, which provide inflation protection during the pre-retirement period, yet have been reluctant to contractually link post-retirement benefits to inflation. This fact also suggests that the more significant result of issuing index bonds is to enhance the ability of plan sponsors to index pensions post retirement.

With the index bonds issued in Great Britain, the investor receives -- at the maturity date -- the updated value of the principal. In addition, the coupon payments are adjusted annually. (Thus the index bonds operate as option one in Table 2.) The question of the tax treatment of the principal adjustment was initially left unresolved by restricting ownership of index bonds to non-taxable institutions such as pension funds, life insurance companies and charitable societies. In March 1982, the British tax system was modified. All capital gains became indexed. Thus, index bonds were made available to all investors with the principal adjustment treated like all other sources of capital gains. On July 2, 1985, Britain abolished the capital gains tax for all Treasury bonds, so that the principal adjustment became non-taxable. Despite the opening of the market to all investors, pension funds in Great Britain continue to account for 44 per cent of total holdings of index bonds. Insurance companies are the next largest holder.[10]

A review of the history of real interest rates in Britain confirms that real interest rates can vary sharply. For example, the coupon rate on the first index bond issued in Great Britain (March 1981) was set at 2 per cent, with a maturity date of 1996. Subsequently, the real interest rate on this index bond has fluctuated sharply, from 2 per cent to 4.5 per cent (Chart 1). An increase in the real interest rate, of course, implies a decline in the price of the index bond. This evidence thus highlights an observation made earlier: the holder of an index bond is subject to real interest rate risk. This real interest rate risk, in turn, explains why the market can price index bonds to provide a substantially higher real yield than, say, short-term securities such as Treasury bills.

The mechanics of the index bonds issued by Great Britain are such that the holder is immune to inflation over a slightly different period than the holding period. The principal is adjusted to changes in the retail price index with an eight-month lag. Thus the holder is fully protected against inflation over the period from eight months before issue to eight months before redemption.

This design was required to permit the calculation of accrued interest. The effect of this eight-month lag on the real return on a long-term bond is not likely to be significant.

Index bonds have proven to be a very useful investment for pension funds in Great Britain. Further, the expansion of the index-bond market has occurred in spite of a decline in both inflation and inflationary expectations. If uncertainty about future inflation increases, the demand for index bonds is likely to strengthen further.

United States

Index bonds have not been issued by the U.S. Treasury, nor have private U.S. corporations issued index bonds. Nevertheless, there has been a considerable amount of discussion about the desirability of either government or corporations issuing indexed securities. The U.S. Treasury apparently considered an issue of index bonds in 1981, but dropped the idea. The issuance of index bonds was not pursued because securities dealers indicated there would be little demand for the bonds. In general, there remains considerable skepticism about the likely demand for index bonds in the United States. This skepticism might be related to the current low and stable rate of inflation.

IV INDEX-LINKED MORTGAGES (ILMs)

A Theory

Index-linked mortgages (ILMs) are currently being issued to finance the Government of Canada's Federal Co-operative Housing Program (FCHP). The objective is to increase the affordability of residential housing. The standard equal payment mortgage (EPM) is amortized by a stream of payments that is unchanged in nominal terms throughout the term of the mortgage. These payments are based on the nominal interest rate which incorporates expected inflation. As a result, the monthly payments will be relatively high in the early years of the mortgage. Over time, the monthly payments remain constant

in nominal terms but decline in real terms. However, one would expect the nominal incomes of households to rise over time, as wages and salaries incorporate inflationary gains. Thus, as a proportion of income, real mortgage payments are particularly high in the early years of the mortgage. This is the well-known 'tilt' problem associated with the EPM in an inflationary climate. The problem, in essence, is that households may find residential housing to be unaffordable because they cannot afford the high real mortgage payments in the early years of the mortgage.

The ILM represents a solution to this 'tilt' problem. With the ILM, interest payments depend on a fixed real rate plus a variable component determined by the actual rate of inflation. Most importantly for the borrower, the ratio of real mortgage payments to real income need be no higher in the early years of the mortgage than at the end. Unlike index bonds in the U.K., the introduction of ILM's in Canada has been driven by problems encountered by borrowers in an inflationary climate.

B ILMs in the FCHP

The initial use of ILMs is in the Federal Co-operative Housing Program, or FCHP. Lenders are protected under the FCHP by additional safeguards. These include:

1. insurance under the National Housing Act of 100 per cent of the outstanding principal (book value) plus accrued interest;

2. annual government assistance to the co-operatives;

3. the creation by the Government of Canada of a Stabilization Fund to assist co-operatives experiencing short-term financial difficulties; and

4. the requirement of a (long) 35-year term, which serves to reduce annual payments and thus to reduce financial pressure on the co-operatives.

These safeguards are designed to minimize the risk of default. The most important safeguard, of course, is the insurance under the National Housing Act of both principal and interest.

ILMs involve a planned tilt of 2 per cent per year. In other words, the lender receives full inflation protection, but payments are designed to rise (only) at the inflation rate less 2 per cent. This tilt is designed to ensure that the real burden of mortgage payments on the borrower does decline over time, but not so rapidly (or capriciously) as with an EPM. Every year, the variable component of the interest rate is adjusted in accordance with the annual change in the consumer price index for the period ending six months previously.

C ILMs as a Pension Fund Investment

Because ILMs guarantee the lender a fixed real rate of return, if the ILM is held to maturity, ILMs represent an attractive investment vehicle for pension funds, for reasons discussed previously. At present, the real interest rate on ILMs is about 4.75 per cent. This is far above the real interest rate that has been historically available on short-term securities such as Treasury bills. (As noted, however, the real interest rate on Treasury bills is, at present, well above the historical average of about one per cent.)

One drawback of ILMs, at least at present, is their very limited liquidity. Indeed, there is no guarantee that a secondary market in ILMs will develop for some time. However, liquidity is only a concern to a limited number of pension plans. These include closed plans, plans which are likely to terminate in the near future, and plans which regularly purchase annuities for retiring employees.

Unlike standard mortgages, ILMs are not subject to reinvestment risk. Standard mortgages have a term (the period at the end of which the mortgage is renegotiated) which is shorter than the amortization period (the period over which the calculation of annual payments is made and at the end of which the mortgage would be completely discharged). At the end of the term, the borrower may elect to pay off the balance rather than renegotiating. For this reason, the lender may have to reinvest a substantial portion of the unamortized principal at then prevailing rates of interest. ILMs under the FCHP have a term which <u>exceeds</u> the amortization period. (This is to allow for the extension of the amortization period if the co-operative experiences short-run financial difficulties.)

Except in the case of default, the lender is immune to reinvestment risk. This feature should enhance the attractiveness of ILMs to pension funds.

The above analysis suggests that ILMs represent an attractive investment for pension plan sponsors whose pension obligations are linked to inflation. The ILMs issued to finance the FCHP include a planned 'tilt' of 2 per cent per year. If 100 per cent inflation protection were mandated, ILMs would produce excessive cash flows in the early years of the mortgage. This should not, however, pose a major problem to pension fund managers.

V SUMMARY

Conventional financial instruments, consisting of fixed-income securities and common stocks, do not provide plan sponsors with a hedge against unanticipated inflation. Very short-term debt instruments, such as Treasury bills, provide an approximate hedge, but at the cost of an expected real return that is low relative to the expected real return on riskier investments.

If, for the sake of argument, full inflation protection were mandated, plan sponsors who chose to hold these conventional financial instruments would bear additional risk or would shed the additional risk at the cost of lower expected real returns. If fund managers could invest in index-linked bonds or mortgages, they could hedge pension liabilities that receive full inflation protection by investing in these instruments. Further, because long-term index bonds or mortgages expose the investor to real interest rate risk, these instruments would be priced by the market to yield higher real returns than, say, Treasury bills. Fund managers, with long-term pension liabilities that receive inflation protection, would be well suited to bearing this real interest rate risk.

The introduction in 1986 of index-linked mortgages (ILMs) in Canada is thus an important new development. The volume of ILMs is as yet very small relative to pension fund portfolios, so that a policy to mandate inflation protection cannot be premised on their widespread availability. The introduction of mandatory inflation protection, on the other hand, may well spur the development of this and related markets.

NOTES

1. More precisely, the standard deviation of the annual real return on the portfolio of stocks is 20.02 per cent, compared to 4.45 per cent for Treasury bills. For a more detailed discussion of these data, see James E. Pesando, Assessment of Alternative Formulas for Delivering Inflation Protection, 1987, a report prepared for this Task Force.

2. We assume, for the sake of exposition, that only the plan sponsor gains (loses) from an unanticipated increase (decline) in the real value of plan assets relative to the real value of plan liabilities.

3. See note 1.

4. At present, the real interest rate on 90-day Treasury bills is about 4 per cent, which is well above its historical average. Presumably, however, the expected real return on equities -- which is not observable -- exceeds its historical average by a corresponding amount, to reflect the much greater risk of equity investments.

5. James E. Pesando and Samuel A. Rea, Public and Private Pensions in Canada: An Economic Analysis (Toronto: University of Toronto Press for the Ontario Economic Council, 1977).

6. Economic analysis draws attention to a related puzzle. If tax-disadvantaged assets such as bonds are priced by the market to yield a higher gross-of-tax return, so that their after-tax return is equal to that provided by other investments with identical risk, then one might expect pension funds to be invested exclusively in fixed-income securities. In light of the tax-exempt status of pension fund earnings, the preferential tax treatment accorded dividends and capital gains is lost if equities are held by a pension fund. Clearly, these tax considerations are not sufficiently strong to cause pension funds to eschew equity investments. The implication is that pension funds are willing to ear the high risk associated with equities in anticipation of commensurately high returns, and in spite of the tax considerations which operate to discourage investment in equities.

7. James E. Pesando, Private Pension Plans in an Inflationary Climate: Limitations and Policy Alternatives (Ottawa, Economic Council of Canada 1979), page 39.

8. Stanley Fischer, 'Inflation and Indexation: Israel'. In John Williamson, editor, Inflation and Indexation: Argentina, Brazil, and Israel, 1985, page 67.

9. Janette Rutherford, 'Index-Linked Gilts', National Westminster Review, November 1983, page 3.

10. Alicia H. Munnell and Joseph B. Grolnic, 'Should the U.S. Government Issue Index Bonds?' Mimeograph, Federal Reserve Bank of Boston, 1986.

TABLE 1

PENSION INVESTMENT (PER CENT OF BOOK VALUES, YEAR-END)

	1982	1980	1978
Equities	31.0%	30.4%	28.7%
Bonds - government	22.8	21.9	20.1
- corporate, etc.	12.3	13.8	14.8
Mortgage	12.3	16.7	19.2
Cash and Short-Term	11.9	10.9	11.0
Real Estate	3.7	--	--
Other	6.0	6.3	6.2
	100.0	100.0	100.0
Foreign Investment	7.4%	7.0%	6.5%

SOURCE: Financial Executives Institute of Canada, 1983 Report on Survey of Pension Plans in Canada.

TABLE 2

ALTERNATIVE DESIGNS FOR AN INDEX BOND

	Actual Inflation		
	4 %	5 %	2 %
Option One[1]			
Interest			
Year 1	30.00	30.00	30.00
2	31.20	31.80	30.60
3	32.45	33.71	31.21
4	33.75	35.73	31.84
5	35.10	37.87	32.47
Principal Repayment	1,216.65	1,338.22	1,104.08
Present Value	1,000.00	1,000.00	1,000.00
Real Return	3.0%	3.0%	3.0%
Option Two[2]			
Interest			
Year 1	70.00	90.00	50.00
2	70.00	90.00	50.00
3	70.00	90.00	50.00
4	70.00	90.00	50.00
5	70.00	90.00	50.00
Principal Repayment	1,000.00	1,000.00	1,000.00
Present Value	1,000.00	1,000.00	1,000.00
Real Return	3.0%	3.0%	3.0%

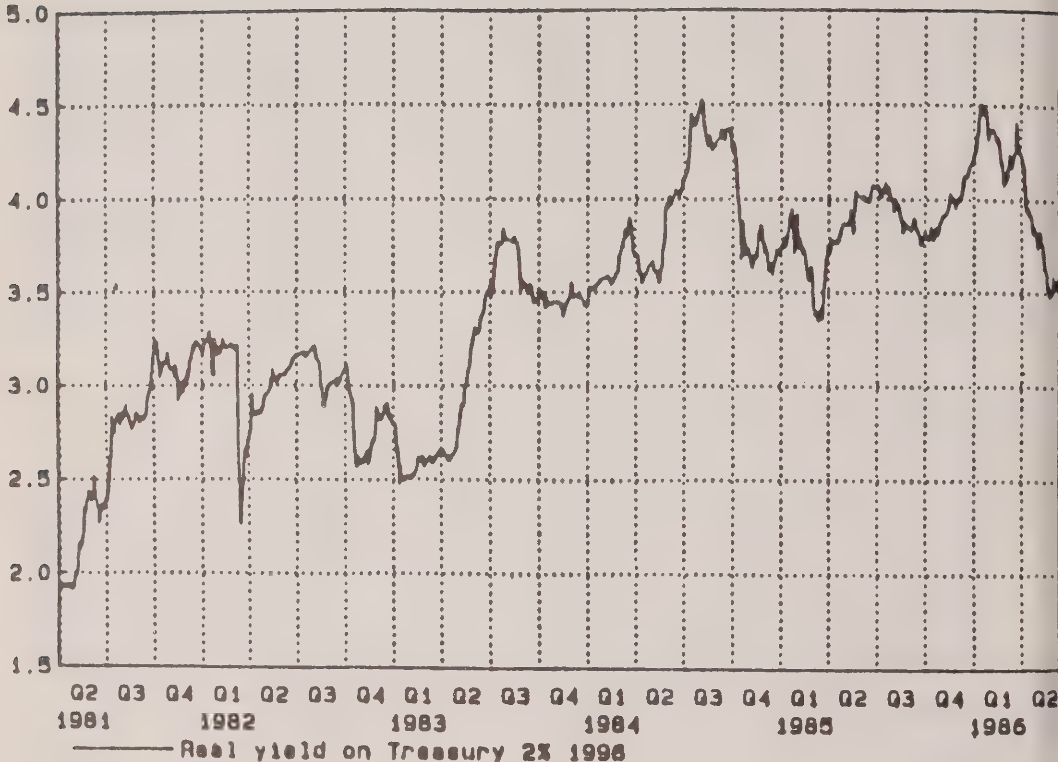
1 Under Option 1, the bond has an annual coupon rate of 3 per cent, which is adjusted each year to keep pace with inflation, and repays the principal adjusted for inflation at maturity.

2 Under Option 2 the bond pays an annual coupon based on the real rate (3 per cent) plus the inflation rate (4 per cent) for a total of 7 per cent.

SOURCE: Alicia H. Munnell and Joseph B. Grolnic, 'Should the U.S. Government Issue Index Bonds?' Mimeograph, Federal Reserve Bank of Boston, 1986

CHART 1

THE REAL YIELD HISTORY OF THE FIRST INDEX-LINKED BOND



SOURCE: Munnell and Grolnic (1986)

Market Shifting of the Costs of Inflation Protection

Jeffrey Trossman

CONTENTS

Market Shifting of the Costs of Inflation Protection

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I INTRODUCTION

Who will pay for mandatory inflation protection of employment pensions? At first glance, the answer to this question may seem quite simple. The government, it would seem, could simply mandate a particular cost-sharing formula (e.g. by requiring that employers pay at least 50 per cent of the cost of inflation protection). In contrast, economic theory indicates that the ultimate incidence of mandatory inflation protection cannot, in general, be controlled by government decree. This paper shows that market forces will determine how the burden of inflation protection is shared between employers and employees.

II PENSION PLANS AS A PART OF TOTAL COMPENSATION

Employment pension plans are best thought of as but one aspect of total employee compensation. Standard economic theory suggests that the existence of employment pensions (and other 'fringe benefits' for that matter) requires special explanation. After all, if employees were paid the wage equivalent of these benefits, they could always purchase those benefits which they in fact wanted. Some employees may value other goods more than pensions. These employees would then prefer higher wages to pensions. In fact, there is considerable debate about the reasons for the existence of employment pensions. One widely accepted explanation relates to the tax benefits of putting

compensation into the pension form (Brittain 1971, p. 112, Gunderson, 1980, p. 204, Blinder, 1982, Mumy, 1985). Such tax preferences could be explained by the government's desire to encourage saving and/or as a means to forestall the need for public pensions.

The essential point is that pensions are but one element of the compensation package. In the absence of government wage setting, there is no sense in which employees receive pension benefits 'for free' (Gunderson, 1980, p. 204). As stated by an American economist, Richard Ippolito (1986, p. 133), 'pensions are not free. They represent a particular method by which workers collect a portion of their compensation. Pensions as such did not increase compensation levels. Other elements of the compensation package will be altered if pensions are increased. Total compensation is not affected'.

The extent to which this general statement is empirically correct in Canada depends on a variety of factors, the most important of which is the market structure.

III PERFECTLY COMPETITIVE MARKETS

In a perfectly competitive market, firms choose employment levels such that total compensation per worker equals the value of the marginal product, or the contribution to total revenue from a marginal increase of one unit of labour (Gunderson, 1980, p. 127). Significantly, firms that are perfectly competitive in their labour market can have no influence on the level of total compensation. When perfectly competitive firms increase (or decrease) employment levels, the effect on the market demand for labour is too small to have any impact on the supply and demand for labour in the market. Clearly, an increase in pension costs can affect the mix between pensions and wages in total compensation. However, there can be no long-run effect on total compensation, since the latter is determined in the labour market, which is (by assumption) perfectly competitive.

Suppose mandatory inflation protection is prospective only, i.e. applies only to benefits earned in the future, which are protected only against future inflation. Further, assume that the pensions/wage mix is currently in equilibrium.

That is, the mix is such that the marginal benefit (in avoided taxes) from increasing pensions is exactly equal to the marginal cost (measured by the extent to which money wages are valued above pensions). Then, to the extent that mandatory inflation protection requires higher future pension payments, the pensions/wages mix is thrust into disequilibrium. Significantly, however, total compensation is still set in the labour market, and is not affected by legislation that requires a new and different pensions/wages mix. The short-run effects of this prospective initiative differ from the long-run impact.

(i) The Short Run

Temporarily, total compensation exceeds marginal productivity as mandatory inflation protection raises the present value of future pension benefits today, while labour contracts may not expire for some time. If mandatory inflation protection raises total compensation for firms with pension plans, these firms will respond by reducing employment and output in the short run. Firms without pension plans and firms in other jurisdictions will capture some of the Ontario firms' market share.

These adverse short-run impacts can be minimized by 'phasing in' the mandatory inflation protection so that it does not take effect until current labour contracts expire. Then, in the next round of negotiations, total compensation can be bargained for. To the extent that mandatory inflation protection increases pension costs, there might be offsetting declines in wages.

(ii) The Long Run

Eventually, labour contracts are renewed. Employees are then free to accept a lower money wage (or, more likely, a lower increase than they otherwise would have received). Most importantly, employees <u>will</u> accept a lower wage, since at the short-run higher level of total compensation, there is excess labour supply. In other words, unemployed workers will exist who are willing to accept lower total compensation. These workers will offer their services until the price of labour is bid back down to the initial level of total compensation, at which level employers will increase employment back to the initial level.

In the end, therefore, total compensation and employment are unchanged. All that mandatory inflation protection has done is to alter the pensions/wages mix in favour of pensions. Workers 'bear the burden' to the extent that they sacrifice wages to make room for higher pensions.

(iii) Empirical Literature

The result in section (ii) above is supported by U.S. based academic literature on the incidence of payroll taxes. Of course, the relevance of this literature is limited, since it refers to non-voluntary contributions to <u>public</u> pensions, and since it is based on U.S. data. Still, the basic principle being tested is analogous to the one concerning the Task Force. In the United States, legislation compels employers to contribute to social security. The payroll tax is seen by the employer as an increased cost associated with each worker. The naive view is that the legislative requirement ultimately means that employers bear the burden of at least part of the social security system. However, standard economic theory suggests that the social security tax on employers is in fact 'paid for' by employees. Nobel laureate Milton Friedman (1965, p.8) states that the tax

> is no contribution by the employer: it is a compulsory tax and it isn't paid by the employer; it is, in effect, paid by the wage earner.

This conclusion is reiterated by Brittain (1971, p. 114), who considers a hypothetical change from an employer tax that supports only 50 per cent of social security to one which funds the entire social security system:

> Except for short-run qualifications such as the current labour contract, there is no reason to expect the employer to pay more total compensation as the result of this accounting change.

Brittain (1971) also conducts an empirical inter-country analysis from which he concludes:

> Employers in the aggregate avoid the burden of their contribution via a trade-off between the tax and real wages and salaries. (Brittain, 1971, p. 111).

Brittain's (1971) results indicate that the full amount of payroll taxes is borne by employees. Although there is some controversy about Brittain's (1971) precise methodology (Feldstein, 1972), the qualifications to his analysis are largely academic, and do not affect the basic result (Brittain, 1972, p. 742). Employers treat the tax like any other component of total compensation.

On the other hand, more recent empirical research has tended to indicate that, even in the long run, workers may not bear the burden of the full amount of a payroll tax. Indeed, a recent Canadian study concluded that only part of the payroll tax is shifted onto labour. Using a formula developed in Beach and Balfour (1983), combined with reasonable levels of supply and demand elasticities, Beach (1984, p. 217) concludes:

> Relative to the original employers' tax, the proportion that is actually shifted back onto labour is about 60 per cent for prime-age males and only about 14 per cent for married women.

The fact that the estimated proportion of 'backward shifting' is less than 100 per cent reflects departures from the assumptions of perfect competition, perfect knowledge and no uncertainty. These departures from the basic model are discussed below. Generally, the amount of backward shifting depends on the responsiveness of labour supply to changes in total compensation, i.e. the elasticity of supply.

Using 'reasonable' elasticities, the results of Beach (1984) are consistent with the view that a substantial portion of employer payroll taxes is ultimately borne by prime-age male labourers.

There have been some similar studies on employment pension plans. For example, Schiller and Weiss (1980) considered data on private pensions for 133 large U.S. firms and concluded:

> higher pension benefits are at least partially offset by lower wages (Shiller and Weiss, 1980, p. 537).

Schiller and Weiss (1980, p. 535) also highlight some potential sources of bias affecting all empirical estimates. In particular, any economic model is likely to be an 'incomplete specification of the factors determining compensation'. For example, non-pension fringe benefits are omitted from the model of Schiller and Weiss (1980). In theory, this problem could be solved by simply including data on non-pension fringe benefits (assuming they were available). However,

the problem is more serious. Some of the factors influencing total compensation are simply 'unobservable'. As noted by Schiller and Weiss (1980, p. 535):

> Workers in strong unions, for example, may receive more of all types of compensation than non-union workers.

For estimation purposes, it would be difficult to find an observable variable which proxies 'union strength' or, more generally, 'bargaining power'. What results is an 'automatic' positive correlation between wages and pensions. Workers who have good wages tend to also have good pensions, and vice versa. Moreover, some of the factors influencing these higher pensions and wages are simply unobservable. Thus any empirical estimates of the extent to which higher pensions are offset by lower wages are likely to be downward biased, i.e. biased in favour of rejecting the hypothesis that the full amount of pension improvements is offset by wage reductions. Therefore, we should be somewhat skeptical about empirical results tending to show that a relatively small proportion of payroll taxes is shifted onto labour.

Given their reservations about their empirical results, Schiller and Weiss (1980), viewed their study as lending 'some support to the equalizing differences hypothesis' (Schiller and Weiss, 1980, p. 529). That is, their results were generally consistent with the view that 'workers may pay for legislated pension plan improvements through lower current wages (or more realistically, lower wage growth)' (Schiller and Weiss, 1980, p. 537). While this study was based on American data, it does indicate that the basic principle (that labour might pay for pension improvements) might apply to private pensions.

It should be emphasized that Schiller and Weiss (1980, p. 538) do not conclude that legislated pension reform is therefore undesirable. Their findings simply support the assertion that workers tend to pay for such legislated improvements. In particular, mandatory inflation protection could be expected to be paid for by workers. As stated by Pesando (1984, p. 140), 'it is the worker who ultimately bears the cost of improved pension benefits'.

(iv) Qualifications

There are several caveats to the above discussion. First, total compensation may not be affected even in the short run by mandatory inflation protection. Employers may simply lower the benefit formula for prospective benefit accumulations. They may well do this, since the result would be the initial (optimal) pensions/wages mix, rather than the bias towards pensions if wages fall. If the benefit formula is reduced, total compensation is unaffected. However, employees still 'bear the burden' of mandatory inflation protection. The offsetting adjustment is then within the pension component of total compensation.

Second, firms might not maximize profits. There may be inefficiencies in management. The imposition of mandatory inflation protection might then 'shock' the employer into improving efficiency, as he should already have done.

> Because of the cost pressure ... employers may be induced into utilizing other cost-savings devices that they should have introduced. (Gunderson, 1980, p. 134).

In other words, employers 'bear the burden' of inflation protection by adopting techniques which they should already have adopted. The argument is that employers required a 'shock' to make these innovations. However, this argument runs counter to the usual assumption of rationality. Moreover, as pointed out by Brittain (1971, p. 114), the standard results on payroll taxes do not depend on the strict profit maximization assumption, but may be reached by the less stringent (and more plausible) assumption of cost-minimization.

Third, unions may prevent erosion of wages. If unions can prevent unemployed workers from offering their services at lower total compensation levels, they may be able to realize a net gain from inflation protection. The 'closed shop' is an obvious way of achieving this result. Beach (1983, p. 217) suggests that a smaller proportion of employer payroll taxes is shifted backward in the union than in the non-union sector. Of course, if total compensation is kept above competitive equilibrium levels, employment falls, so the remaining workers realize a gain at the expense of other workers who become unemployed. If the firm operates in a competitive product market, and if there are competitors who are unorganized and/or who have less generous (or no) pension plans,

then the firm cannot remain competitive while paying higher total compensation. There will clearly be an incentive for the firm to simply wind up the plan. Otherwise, the firm will be uncompetitive.

Fourth, the existence of a union, combined with some market power for the firm, could lead to 'forward shifting' rather than 'backward shifting'. That is, the firm would respond to the cost increase imposed by mandatory inflation protection by simply increasing prices for consumers of their products. It is then consumers, rather than employees who pay for inflation protection. As noted by Beach (1984, p. 223), this is easier to accomplish in a period of expansion than in recessionary periods. In general, it is difficult to obtain precise quantitative estimates of the extent to which firms will shift costs forward. The degree of forward shifting will depend on the firm's capacity to control product prices (i.e. market power) and the workers' capacity to resist erosion of wages.

Beach (1984, p. 224) considers the impact on the aggregate price level of an increase in payroll taxes. In the long run, the price level must depend on monetary policy. However, short-run CPI fluctuations might be caused by such things as employer payroll taxes. Using the Bank of Canada's model of the Canadian economy (RDXF), Beach (1984, p. 224) finds that a one percentage point increase in both employer and employee payroll tax rates results in a 0.3535 per cent increase in the CPI. Although Beach (1984, p. 224) calls this a 'long-run effect', the RDXF model which he used is a short-run model. Nevertheless, these simulations indicate that a significant short-run forward shifting of costs could take place.

Finally, firms may respond by raising employee contributions in contributory plans or by turning non-contributory into contributory plans. If employees value pensions highly enough, they would prefer increased contributions to lower wages. In this case, the price of labour to the firm remains unchanged. The increase in future obligations necessitated by inflation protection is simply met by increased employee contributions. Employees 'bear the burden' of mandatory inflation protection, since it is their increased contributions which pay for it.

IV THE CASE OF MONOPOLY

What if the firm is not perfectly competitive in its product market? In theory, this should have no impact on total labour compensation provided the firm is perfectly competitive in its labour market. The monopolist who competes for labour services is a 'price taker' in the labour market; she can have no impact on total compensation, since a change in her employment levels is too small to have any impact on market demand for labour (Gunderson, 1980, p. 156). It is true that monopolists employ fewer labour services than the industry would if it were competitive. However, this has no significant impact on the demand for a particular type of labour services, provided the monopolist is but one of many buyers of such services.

Gunderson (1980, p. 157) suggests that a monopolist might in fact pay a higher level of total compensation than would a perfectly competitive firm. This is because monopolists earn 'economic profits' or 'rents'. The monopolist is able to appropriate these rents by restricting supply to the profit-maximizing level. As a result, the monopolist obtains a return in excess of the normal rate of return. Thus, the monopolist realizes a 'pure profit' or 'rent'.

Labour unions, or even unorganized workers who could potentially unionize, know of the existence of such 'excess profits'. Through bargaining, workers may be able to obtain a wage above that dictated by the competitive labour market, by requiring the firm to share its rents. The firm may be willing to do this, either to obtain a more satisfied (and thus more productive) work force, or to 'buy the image of being a good employer' (Gunderson, 1980, p. 157).

What are the implications of this discussion for mandatory inflation protection? For employees of monopolists (or, more generally, of firms enjoying some market power), the burden of inflation protection could be borne at least in part by the firm. Monopoly rents provide a 'cushion' for the monopolist, who could shoulder some of the burden, in return for a public perception that the monopolist is 'a good employer'.

However, this result is not likely. Presumably, monopolistic firms have already bargained with their employees and have achieved some equilibrium total compensation level which may or may not involve employees sharing in monopoly rents. Now, if inflation protection is mandated, there is no particular

reason why employees should suddenly be able to bargain for more of these rents. Thus, unless the dynamics of the bargaining process change, there is no reason why employees should be able to obtain an additional increment of monopoly rents. On the other hand, regulated public utilities might pass the costs of mandatory inflation protection forward. Thus, employees of such firms would not bear the cost of mandatory inflation protection.

V RETROACTIVE INFLATION PROTECTION: WHO BEARS THE COST?

There is one exception to this argument. Throughout this paper, we have been assuming that inflation protection is purely prospective (i.e. applies only to future service benefits). What if the formula requires protection of benefits earned in the past (e.g. the pensions of people who have already retired)? For the purposes of labour market bargaining, these benefits are not part of total compensation. To see this, imagine that the employees simply refused to accept lower wages in return for inflation protection of current retirees' pensions. The latter do not represent a benefit to the employees, so the employees will not be willing to accept any reduction in wages. Moreover, employers know that this is the case. Thus, inflation protection of past service benefits involves a legislatively mandated transfer of rents from employers to employees. Shareholders bear the burden of such retroactive inflation protection. (See Pesando, 1984, p. 140.) In the monopoly case, such rents exist. However, in the case of perfectly competitive firms, retroactivity presents a real problem, in the sense that rents simply do not exist.

VI MARKETS THAT LIE BETWEEN MONOPOLY AND PERFECT COMPETITION

So far, we have considered the cases of firms which are perfectly competitive in their product markets, and those which are monopolists in their product markets. Many market situations actually fall somewhere in between these polar extremes. Economic theory for oligopolistic industries suggests that, in

general, some rents will exist. However, as in the monopoly case, there is no particular reason why mandatory inflation protection should shift rents from the firm towards workers, unless the formula contains a retroactive element.

VII NON-COMPETITIVE LABOUR MARKETS

In all of the above cases, it was assumed that the firm was one of many employers in the market for a given type of labour services. Another possibility is that the firm is a single buyer of a particular type of labour services. Hospitals, for example, tend to be the only source of demand for nurses' services. A single buyer in a labour market is known as a monopsonist.

Economic theory indicates that the monopsonist pays a level of total compensation below the value of the marginal product of labour (Gunderson, 1980, p. 167). In other words, monopsonists pay less than the incremental value of the last employee's services. They are able to do this, since profit maximization dictates that they set the marginal cost of employing a worker equal to the value of the marginal product to determine employment. But, at this lower employment level, employees are willing to accept total compensation which is below the value of the marginal product.

Suppose mandatory inflation protection is imposed on a monopsonistic labour market. In general, the monopsonist is willing to pay a higher level of total compensation when the minimum is exogenously increased, as in the case of a legislated minimum wage, (Gunderson, 1980, p. 174). This is because the monopsonist is already 'exploiting' labour to the extent of the excess of the value of the marginal product over the level of total compensation. If legislation requires a higher level of total compensation, the monopsonist maximizes profits by simply paying this higher level. Paradoxically, the level of employment actually increases.

However, unlike a legislated minimum wage, mandatory inflation protection does not require an increase in total compensation (since the wage can decline). Clearly, it is theoretically possible for total compensation to rise. However, it is also conceivable that employees will bear the burden of a payroll tax, even in monopsonistic situations (Brittain, 1971, p. 114).

How empirically relevant is the monopsonistic model? Gunderson (1980, p. 178) examines the empirical evidence and concludes that it is 'both scant and at times contradictory'. Monopsonistic power does seem to exist in cases of 'one-industry towns', cases where an individual has a strong preference to remain with a particular firm, and cases in which an individual has accumulated 'firm-specific' human capital, such as knowledge which cannot be transferred to any other firm. Still, most labour markets are not characterized by significant elements of monopsonistic power.

VIII CONCLUSION

In conclusion, employees generally will bear a portion of the burden of mandatory prospective inflation protection, according to standard economic theory. The extent to which this is the case varies from industry to industry. This is because pensions are but one element of total compensation (or, from the firm's standpoint, the 'price of labour'). If the government mandates higher future pension benefits, future labour-management bargains will take account of this. As the price of labour is generally set by the interaction of market supply and demand, employees will generally be unable to turn mandatory inflation protection into a higher level of total compensation. This result is a long run outcome. In the short run, total compensation may rise. In addition, a number of factors operate to prevent the usual market adjustment outlined above. These include union power, monopolistic power in product markets and monopsonistic forces in labour markets.

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The Development of Funding Surpluses in Canadian Pension Plans

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CONTENTS

The Development of Funding Surpluses in Canadian Pension Plans

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I INTRODUCTION

A Preface

This study was prepared at the request of the Ontario Task Force on Inflation Protection for Employment Pension Plans by two consulting actuaries, Frank Livsey of Hewitt Associates and David Short of Eckler Partners Ltd.

The authors wish to acknowledge the helpful suggestions made by the members of the Task Force and of its Research Advisory Group with respect to this study and the invaluable contribution of Michael Sze, F.S.A. of Hewitt Associates who provided assistance to the authors throughout the preparation of the study and conducted much of the detailed analysis. We are also very appreciative of the co-operation of the pension plan sponsors and their consultants who provided data for the study and who, for reasons of confidentiality, cannot be identified.

Nevertheless the authors assume the sole responsibility for the views expressed in this report, which do not necessarily represent the views of the firms with which they are associated.

B Purpose and Methodology of the Study

Many Canadian pension plans have developed substantial funding surpluses in recent years, for reasons which will be discussed in this study. A number of observers and organizations have, noting the desirability for inflation protection in pension plans and the contribution of inflation-related investment yields to

surplus, suggested that pension plan sponsors be required to use at least a portion of such surpluses to finance inflation protection.

The authors are not persuaded that the issues of inflation protection and funding surpluses should be so closely associated, for reasons which will be discussed. Indeed the recognition of the desirability of inflation protection in Canadian pension plans and the first studies which gave serious consideration to mandatory inflation protection came in latter part of the 1970s - an era when many plans were in a relatively weak funded position due to high rates of inflation and low real rates of investment return and serious concerns were being raised about the levels of unfunded liabilities in pension plans.

Nevertheless we believe that this study of the development of funding surpluses and the responses of plan sponsors to the emerging surpluses will be helpful to the members of the Task Force and perhaps to other readers in understanding the evolution of the pension system in Ontario and the way in which defined benefit plans have been funded.

In Sections II and III of this study we deal with the meaning of the term 'surplus' (and its negative counterpart - the 'unfunded liability') and review the factors which have contributed to pension plan surpluses and unfunded liabilities in general, focusing on the 15 year period from 1972 to 1986. This review is subjective in nature, being based on the authors' experience as consulting actuaries and that of the firms with which they have been associated.

In Section IV of the Study we provide a more detailed analysis of pension plan experience over that 15 year period, presenting statistical information where such was available.

Section V presents our conclusions and Section VI is an addendum dealing with the impact of the October 1987 stock market crash.

C Limitations of Study

The study does not attempt to identify the global amount of surplus existing in Ontario pension plans or the total amounts of surplus within the system arising from various sources. Given the fact that there are some five thousand defined benefit pension plans with Ontario members, the lack of a detailed financial

data base on these plans, the variety of actuarial assumptions and cost methods used in funding the plans and the fact that many of these plans also cover members in other provinces, such an analysis would be a massive project and beyond the scope of this study.

Instead the authors have examined the available statistical information relevant to the study and have supplemented this analysis with observations based on their experience as actuaries and advisors to plan sponsors. The perceptions of other actuaries and of plan sponsors and participants might be rather different from those of the authors.

II THE MEANING OF SURPLUS AND UNFUNDED LIABILITY

A The Funding of Defined Benefit Pension Plans

In order to understand the meaning of the term 'surplus' with respect to a pension plan, it is necessary to have some knowledge of the way in which defined benefit pension plans are funded, with apologies to readers who are familiar with this subject.

In the era before formal pension plans, when pensions were viewed as a reward for long and faithful service which could be granted or not at the discretion of the employer, there was usually no funding during the period of active service and benefits would be paid from current revenues during the period of retirement. Even when large numbers of employers began to establish formal pension plans following World War II, there was no legal requirement for pre-funding although many employers did voluntarily provide a reasonable level of funding. Where benefits were pre-funded this was often accomplished by the purchase of benefits under an insured group annuity contract, with the insurance company bearing the investment risk. In this environment, funding surpluses could arise to only a very limited extent.

During the 1950s and 1960s it became apparent to many employers (particularly the larger organizations) that greater flexibility and cost effectiveness could be achieved under a self-administered funding arrangement with a separate

pension fund being maintained and invested in marketable securities under the direction of the plan sponsor, although many other employers continued to fund their plans through insured group annuity contracts. With the enactment of the original Ontario Pension Benefits Act in 1965, it became mandatory to prefund pension benefits during the active service period.

The objective in funding a pension plan under a self-administered funding arrangement is to set aside sufficient funds on a systematic basis so that the plan members have a reasonable assurance that the benefits promised by the plan will in fact be paid, even though the employer may not remain in business indefinitely.

In a typical defined benefit pension plan, the terms of the plan require the employer to contribute whatever amounts are required, together with the members' contributions (where applicable), to fund the plan in accordance with the requirements of the pertinent pension benefits legislation based on the report of a qualified actuary.

As monies paid into the pension fund will typically be invested for many years under unpredictable economic conditions before they are required to pay benefits, and moreover the amount of benefits to be paid in each future year is subject to many economic and demographic variables and cannot be accurately forecast, it is necessary for the actuary to recommend an appropriate level of contributions each year on the basis of a number of assumptions which will not, except by coincidence, be realized exactly. Periodically the level of contributions will be adjusted based on emerging experience and the assumptions made by the actuary will from time to time be revised. This process inevitably results in the emergence of gains and losses which have, in many cases, resulted in funding surpluses as discussed below.

B Definition of Surplus and Unfunded Liability

The definition of 'surplus' and 'unfunded liability' is complicated by the use of different 'actuarial cost methods' in the funding of pension plans. Differing actuarial cost methods provide varying paces of funding the plan, with certain methods being particularly appropriate where the size and demographic charac-

teristics of the employees may be expected to remain fairly stable for many years and other methods being appropriate in cases where the workforce may be expected to decline in size and the average age is expected to increase.

The most frequently used actuarial cost method in Canada, which will be emphasized in this section, is the 'accrued benefit' or 'unit credit' method.

Under the accrued benefit method, the value of the existing assets of the pension fund as of a valuation date is compared to the present value of accrued benefits. By 'present value of accrued benefits' we mean the amount that would be required, in the opinion of the actuary, to provide for the future payment of benefits related to service prior to the valuation date by active members of the plan together with future payments to the existing pensioners, deferred pensioners and beneficiaries. For ongoing plans of the 'final average earnings' type provision is made for future salary increases, and for plans providing contractual inflation protection provision is made for future inflation.

If the existing assets exceed the present value of accrued benefits the plan is said to have a funding surplus (often referred to as an 'actuarial surplus' or simply 'surplus'). If the present value of accrued benefits exceeds the value of existing assets the plan is said to have an 'unfunded liability' which, under existing regulations in Ontario, must be discharged over not more than 15 years.

In addition to determining the surplus or unfunded liability the actuary will, in making a valuation of an ongoing pension plan, determine the estimated 'normal cost' (also known as the 'current service' cost) which is the contribution required under the particular actuarial cost method to finance future benefit accruals for active members of the plan. Under the accrued benefit cost method, the normal cost for a year is the estimated present value of future benefit payments to active members related to service in that year. In a contributory plan a portion of the total normal cost will be financed by employee contributions.

Another actuarial cost method quite widely used in Canada is the 'level premium' or 'projected benefit' method (of which there are several variations). In this method the normal cost is calculated as the level annual amount required per employee (either flat dollar amount or percentage of salary) to finance the benefits accruing over a typical employee's working lifetime. To determine the surplus or unfunded liability the value of existing assets plus the present value of future 'normal cost' contributions is compared to the total present value of

projected benefits to existing participants (including benefits related to future service). This method tends to result in higher funding payments during the earlier years of a plan's operation than the accrued benefit method and in lower funding payments as the plan matures. The use of this method will not be considered further in this section.

It is quite usual, when a pension plan is first established, to provide the initial group of members with benefits related to their service both before and after the effective date of the plan. In this situation the plan will have a positive 'present value of accrued benefits' on the effective date. Unless the employer is prepared to make an initial payment into the pension plan equal to the present value of accrued benefits (which would be quite unusual), the plan will start out with an unfunded liability. Similarly an unfunded liability may be created if benefits are improved after the effective date of the plan (unless the plan has a surplus sufficient to cover the increase in the present value of accrued benefits). This type of unfunded liability is referred to as an 'initial unfunded liability', as opposed to the type of unfunded liability which may be created by adverse financial experience.

C Actuarial Assumptions And Their Impact On Surplus

As noted above, the actuary must make a number of assumptions about future economic and demographic factors in making a valuation of a pension plan. Depending on the design of the plan, these factors may include:

- the rate of investment return on the fund
- the rate of price inflation
- salary increases
- rates of mortality for active and retired members
- rates of employee turnover
- incidence of disability
- utilization of early retirement

Other assumptions may be required, but the above factors are usually the most important. Also a value must be placed on the assets of the pension fund which may well differ from the market value, in order to reduce the impact of short-term market fluctuations. A further variable is the extent to which contractual inflation protection will be pre-funded, given that existing legislated funding standards permit 'pay as you go' financing of such inflation adjustments rather than requiring their pre-funding.

Given the impossibility of predicting correctly all of the factors about which assumptions must be made, there will generally be a range of assumptions with which the actuary would be comfortable and which would comply with the standards of practice of the actuarial profession and be acceptable to the regulatory authorities. For example the actuary might, for a particular plan at a particular time, be prepared to use an investment return assumption ranging from 6% to 8%, together with consistent assumptions as to price inflation and salary increases. The actuary would normally confer with the plan sponsor (usually the employer) in arriving at assumptions within the acceptable range.

The actual assumptions selected within the acceptable range can have a major impact on the reported surplus or unfunded liability. Also the acceptable range of assumptions may change over time as economic conditions and the demographic characteristics of the plan members change. It may turn out that the conditions experienced in the future will be outside the range that currently appears reasonable.

For these reasons the reported surplus or unfunded liability should only be regarded as an estimate, based on one particular set of assumptions that will certainly not be realized exactly. It is not an amount that is capable of precise and objective determination.

To illustrate the sensitivity of the reported surplus or unfunded liability to the actuarial basis, the following examples are provided for a hypothetical but typical pension plan providing a retirement pension at age 65 equal to 1.5% of average earnings in the 5 years preceding retirement times years of service, subject to the Revenue Canada maximum of $1,715 times years of service up to 35 years. The plan covers 2,000 active members with an average age of 40 years, average service of 14 years and an average salary of about $34,000. There are 400 pensioners with an average annual pension of about $11,700 and

150 deferred pensioners with an average annual deferred pension of about \$3,100. The plan provides no contractual inflation protection and has assets valued at \$130 million.

The present values of accrued benefits (or 'accrued liabilities') and the surplus or unfunded liability on the basis of three different actuarial bases with respect to interest earnings and annual salary growth are as follows. All figures are in millions of dollars.

Accrued Liabilites	5% interest 4% salary	7% interest 6% salary	9% interest 8% salary
active employees	113.1	91.2	70.7
pensioners	43.8	39.4	35.7
deferred pensioners	3.1	2.4	1.8
total	160.0	133.0	108.2
surplus (unfunded liability)	(30.0)	(3.0)	21.8

The only variables in this example are the interest rate and the rate of salary increases (with the difference between them remaining constant at 1%). Changes in other assumptions such as mortality rates and turnover rates and in the difference between the interest rate and the salary growth rate would also affect the reported surplus or unfunded liability.

It should be noted that the individual actuarial assumptions used by actuaries may by themselves sometimes appear to be unrealistic, particularly the 'economic' assumptions. For example, using a 4% annual salary increase assumption may appear to be unreasonably optimistic during a period of high inflation. However, if the investment return assumption is reasonable in relation to the salary increase assumption (perhaps 1% to 2% higher), the results of the valuation are likely to be reasonable and frequent changes in the actuarial basis can be avoided. In the past it was quite common to make no explicit provision for future salary increases but to use an artificially low investment return assumption.

Assumptions which by themselves appear unrealistic but which, as a package, are intended to produce reasonable results are often referred to as 'implicit

assumptions', whereas assumptions which are individually realistic are referred to as 'explicit assumptions'. In recent years the trend has been towards more explicit actuarial assumptions.

D Funding Assumptions vs. Best Estimate Assumptions

It might be expected that the assumptions used by the actuary in making a valuation of a pension plan for funding purposes would reflect the actuary's 'best estimate' of future circumstances with no degree of conservatism or undue optimism. If this were the case, there would be an equal probability (at least in the mind of the actuary) of the funding payments being under-estimated or overestimated.

In fact the assumptions used by actuaries are not generally 'best estimates' but usually incorporate some degree of conservatism. Most plan sponsors, plan members and actuaries would consider it preferable to fund the plan on a basis which provides a greater than 50% probability that the funding payments will be adequate, because of need for benefit security. Even though a certain degree of under-funding may be rectified by increasing the level of employer contributions in the future, this pre-supposes that the employer will still be in business and will be in a position to increase its contributions without adversely affecting its business position. Also the level of pension benefits is usually established taking into consideration the level of funding payments that will be required, and the employer will not wish those funding payments to be under--estimated.

If the actuarial basis is unduly conservative the employer will be paying into the pension fund unnecessarily large amounts which might be better employed elsewhere or, looking at the other side of the coin, the benefits provided by the plan could be improved without increasing the employer's contributions.

Regulatory authorities also influence the actuarial basis. The authorities administering pension benefits legislation (the Pension Commission of Ontario, for example) are concerned with the solvency of pension plans and their guidelines for actuarial bases tend towards conservatism. The Income Tax authorities, on the other hand, are concerned about the tax relief obtained by tax-paying

employers on their pension plan contributions and may reject an application for the approval of funding payments that are based on an unduly conservative actuarial basis.

Accordingly the actuarial basis will usually incorporate a reasonable (but not undue) degree of conservatism and consequently gains should be expected to occur more frequently than losses. The appropriate degree of conservatism will depend on the financial strength of the employer, its expected ability to increase its future contributions if necessary and the wishes of the employer.

It is important to remember that the long-term cost of a pension plan is governed by the actual benefit payments and the plan's investment earnings and not by the funding basis. The funding basis affects only the pace of funding the benefit obligation. A 'conservative' funding basis is one in which a relatively large portion of the benefit obligation is funded in the earlier years and a lower portion in later years, whereas with a 'liberal' funding basis the reverse is true.

When a conservative funding basis is used, the 'excess' contributions made in the earlier years will tend to generate funding surpluses which may be used to reduce the funding payments in later years and/or to finance benefit improvements or may, subject to regulatory restrictions, be withdrawn and used for other business purposes. This flexibility is attractive to employers.

It should perhaps be noted that the willingness of employers to fund plans on the basis of somewhat conservative actuarial assumptions may be related to their ability to apply the resulting gains to reduce future contributions, if they so wish. If employers were required, as a result of legislative changes, to apply such gains to improve benefits it is likely that many employers would wish to reduce or eliminate the element of conservatism in their funding basis.

E Distinction Between Surplus And Actuarial Gains

The terms 'surplus', 'actuarial gains' and 'experience gains' are often used almost interchangeably. For the purpose of this study these terms have quite specific and different meanings.

<u>Surplus</u> means the excess of a pension plan's assets over its accrued liabilities (i.e. the present value of accrued benefits) as of a particular valuation date, and is an item that would appear in the 'actuarial balance sheet' of the plan). The precise definition of assets and accrued liabilities depends on the actuarial cost method being used. The negative counterpart is an unfunded liability.

An <u>actuarial gain</u> is a measure of the improvement in a pension plan's financial position over a specified period of time. For example if, based on an valuation as of December 31, 1983 we would have expected a plan to have an unamortized unfunded liability of $2 million as of December 31, 1986, but the actual valuation as of December 31, 1986 shows the plan to have a surplus of $3 million, we conclude that the plan had an actuarial gain of $5 million during the 3 year period from December 31, 1983 to December 31, 1986. By analogy the actuarial gain would appear in the 'actuarial income statement' of the plan. The negative counterpart is an actuarial loss.

An <u>experience gain</u> is the portion of an actuarial gain that is due to experience during the period differing from the actuarial assumptions used in the valuation on which the funding payments were based. For example if, based on the actuarial assumptions, we would have expected the plan to receive investment income of $5 million dollars during the three year period but in fact it received investment income of $8 million, the experience gain related to investment income in that period was $3 million. The negative counterpart is an experience loss. Actuarial gains may also arise from changes in actuarial assumptions and methods in successive valuations, but these are not experience gains.

It is important to note that a valuation may show a plan to have had an actuarial gain since the previous valuation but still to have an unfunded liability. This simply means that the present unfunded liability is less than the unfunded liability that would have been expected based on the previous valuation. Similarly a plan may have incurred an actuarial loss but still have a surplus.

The above discussion tacitly assumes that the employer has made contributions to the plan based on a very specific funding recommendation. In practice the actuary will often report to the employer (based on the adopted actuarial basis) both the minimum funding payments required and the maximum tax-deductible funding payments. To the extent that the employer actually contributes more than the minimum funding payments, this too will represent a gain to the plan.

F Surplus in Ongoing vs. Terminating Plans

There are a number of differences in the determination of surplus in ongoing pension plans as opposed to plans which have terminated or are about to terminate.

Firstly the prospective benefit payments to an active member of an ongoing plan will typically depend on several factors which are not known on the valuation date. These factors may include future salary increases, whether or not the member will remain in the plan until retirement (and if not, the date of termination and type of termination), the age at which the member will retire and the period for which the member (and perhaps the member's spouse) will survive to receive pension payments. If the plan is terminating, however, the amount of accrued pension for each member can be determined precisely and the only unknown factor is the period for which the member will receive the pension. Accordingly the amount of surplus (or unfunded liability) in a terminating plan may be estimated with greater certainty than in an ongoing plan.

Secondly the amount of surplus (or unfunded liability) in a terminating plan is usually significantly different from the surplus that would have existed as of the same date if the plan had continued in operation. In a plan which provides pensions based on final average earnings the surplus will generally increase on termination of the plan, as future salary increases need no longer be taken into account. On the other hand, for a plan offering unreduced early retirement benefits at relatively low ages the surplus may be reduced on termination, as the former members may be expected to apply for their pensions at the earliest possible date, which may not have been the case if the plan had continued in operation.

Finally it is common practice on termination of a pension plan to purchase annuities for the accrued benefits of active members, pensioners and deferred pensioners, particularly if the employer is going out of business. Since the insurance company issuing the annuities assumes full risk once the premiums are paid, the pension fund is left with no residual liabilities and therefore the amount of residual surplus can be determined exactly in this situation. In recent years the premiums charged by competitive life insurance companies for immediate and deferred annuities have typically been less than the liabilities established by self-administered plan for the corresponding benefits (due to the

high prevailing interest rates), so that the purchase of annuities has typically led to an increase in the reported surplus.

III EXPERIENCE AT THE MACRO-ECONOMIC LEVEL IN 1972-1986

A Introduction

In this section of the study we review the economic situation in Canada in the 15 year period 1972-86 insofar as it affected the financial position of pension plans. We also comment on the principal factors which led to actuarial gains and losses during the period and on the way in which pension plan sponsors responded to these gains and losses.

B Review of Economic Statistics in the Period

Tables 1 and 2 provide a history of the following economic statistics for the period 1967 to 1986. Although this study focuses on the period 1972 to 1986, statistics for the five immediately preceding years are also shown for comparison purposes and also because they affected the financial condition of pension funds at the beginning of the study period.

(1) Consumer Price Index. The December to December changes in the CPI (CANSIM D11110) are reported.

(2) Wage and Salary Index. The December to December changes in the Statistics Canada Wage and Salary Index (CANSIM D1439 to March 1983 and D1241 thereafter) are reported.

(3) Common Stock Index. The TSE 300 Total Return Index (December to December returns) are reported.

(4) Canada Long Bonds. The December to December return on Government of Canada Bonds (over 10 year term) is reported (CANSIM B14013).

(5) 91 Day T Bills. The returns on 91 Day Treasury Bills assume purchase on January 1 and quarterly rollover until December 31 (CANSIM B14001).

(6) SEI Median Return. The median time weighted annual returns of the pension funds in the SEI Financial Services database on a 'total fund' basis are reported.

These statistics are as reported in the Canadian Institute of Actuaries' 'Report on Canadian Economic Statistics 1924-1986' (June 1987).

The rates of change and return shown in Table 1 are nominal values. Those shown on Table 2 (other than for the CPI) are real values net of the increase in the CPI. The real values as reported in Table 2 are in the long term more significant for pension funds than the nominal values. For convenience average annual values for the 5 year periods ending in 1971, 1976, 1981 and 1986 and for the 15 year period ending in 1986 are also reported. A brief commentary on these statistics follows.

The rate of price inflation averaged 7.9% during the 15-year period but was quite variable with a peak of 12.3% being reached in 1974 and a second peak of 12.1% in 1981, since when the rate of price inflation has declined sharply.

The nominal rate of wage and salary increases was also quite variable but real wage and salary increases (net of CPI increases) fell within a narrower range. On a 5-year basis real wage and salary increases were very low during the latter part of the period averaging -0.9% in 1977-81 and 0.0% in 1982-86. Returns on common stocks were as usual highly volatile on a one year basis. However Table 2 shows a 5-year period of negative real returns (averaging -3.6% in 1972-76) followed by strong positive real returns averaging +8.4% in 1977-81 and +8.1% in 1982-86. For comparison the average annual real return on the common stock index for the 50-year period 1937-1986 was 5.7%.

Real returns on long term government bonds were negative in nine of the ten years from 1972 to 1981, as bond prices fell in response to rising interest rates during the period of generally increasing rates of inflation. However bond prices rose sharply in 1982-86 as interest rates fell, leading to an average real rate of return of +15.6% in that period.

The rate of return on 91 day T Bills (and on other money market investments) moved in the same direction as the rate of price inflation during the period, but was not sufficiently high to provide positive real returns in the earlier part of the 15 year period. During the latter part of the period, however, rates of return on short term investments were unusually high in relation to inflation providing an average real rate of return of 5.8% in 1982-86.

The SEI median returns are a proxy for the returns actually achieved by pension fund managers during the period, although individual pension fund managers may significantly out-perform or under-perform the median returns based on their success (or lack of success) with respect to security selection within the asset classes and with respect to the asset mix decision. The average real median return in 1972-76 was -3.0% (which was not surprising in view of the negative returns on each of the major asset classes in that period). This improved to a modest positive average real return of +1.0% in 1977-81 and a strongly positive average real rate of return of 11.3% in 1982-86.

It should be noted that the pension funds included in the SEI database are, for the most part, larger than average funds and are actively managed funds. Smaller pension funds have typically been quite conservatively managed and their performance has been less sensitive to the performance of common stocks.

C Experience Differing from Actuarial Assumptions

In Section II E it was noted that 'experience gains' and 'experience losses' arise for pension funds when experience during the period between actuarial valuations of the fund differs from the assumptions made in the valuation at the beginning of the period. How, then, has the economic climate contributed to experience gains and losses during the 15 year period under review?

In order to answer this question it is necessary first to examine the type of actuarial basis which was being used in 1972 to establish the level of funding payments.

The investment return assumptions being made at that time were typically more conservative than those in current use, with assumed rates of around 5%

per annum being typical. This level of assumed rate seemed reasonable at the time in relation to historical returns on the types of securities in which pension funds were typically then invested.

For plans of the final average earnings type, where it is necessary to assume a future rate of general salary increases, a salary increase rate about 1.5% to 2% lower than the investment return assumption would typically be used.

The average SEI median return during the 1972-76 period was 5.2% - quite close to the typical investment return assumption. This might lead to the expectation that investment gains and losses would not have been substantial. However for two successive years during that period - 1973 and 1974 - the median return was negative (-2.1% and -12.7% respectively) so that actuarial valuations as of the end of 1972 would typically show a substantial investment loss. After 1974 the median returns were generally higher (averaging 11.2% in 1977-81 and 17.2% in 1982-86) so that investment gains became more prevalent. During the period under review the typical levels of investment return being assumed increased, with assumed rates in the range of 6% to 7% becoming typical and with slightly higher rates being used in some cases, but even these higher assumed rates were less than the rates generally being earned.

It should be noted that the assets of pension funds are not usually taken at market value for purposes of an actuarial valuation. The use of an unadjusted market value, particularly for funds with substantial equity investments, could lead to wide swings in valuation results due solely to short-term market fluctuations. During the earlier part of the review period it was quite common for book value to be used, which meant that capital gains and losses would only be recognized on the disposition of investments. During the latter part of the period, it became more common to use a smoothing technique to produce a market-related value less volatile than the unadjusted market value. For these reasons, experience gains due to investment experience tend to be less drastic than a review of the market rates of return might lead us to expect.

The second major economic factor to consider is the rate of increase in wage and salary levels. For pension plans of the final average earnings type, higher than expected salary increases will lead to experience losses from this source. For these plans the main concern is the difference between the rate of increase in salary levels and the rate of investment return (often referred

to as the 'gap'), rather than the absolute level of either. As noted above, a typical valuation in the early 1970s might assume a positive gap of about 1.5% to 2%.

As shown in Table 1, the average annual increase in wage and salary levels in 1972-76 was about 10.7% while the median pension fund return was 5.2%, a negative gap of about 5.5%. It was this factor that led to many substantial experience losses in pension plans during the early to mid 1970s. The average gap in 1977-81 was about +2.0% (investment return of 11.2% minus salary increases of 9.2%) and in 1982-86 was an unusually large +11.9% (investment return of 17.1% minus salary increases of about 5.2%). This turnaround in the experience resulted in substantial experience gains for final average earnings type plans in the latter part of the period under review. (It should perhaps be noted that the use of a 'smoothed' asset value by many plans rather than the unadjusted market value made the experience losses and gains from investment experience less dramatic than they would otherwise have been and that, for newer plans with a relatively small asset base, the investment experience was less significant.)

The experience with respect to wage and salary levels did not lead directly to experience gains and losses for plans of other types (principally flat benefit and career average earnings type plans). However it is common for the levels of benefits in these plans to be adjusted periodically in line with salary levels, either unilaterally or through collective bargaining. Accordingly the factors that led to salary-related experience losses for final average earnings plans in the early part of the period led to pressure for benefit improvements in other types of plan which could not be financed by favourable investment experience and accordingly the funded position of those types of plan was often weakened. As the economic experience became more favourable in the latter part of the period, it was frequently possible to make use of investment gains to upgrade the level of benefits. The size of benefit increases in the latter part of the period was generally quite modest (as inflation moderated), and the funded position of many plans strengthened in spite of the benefit increases.

The discussion in this section has been confined to experience gains and losses related to general economic factors. Many pension plans experienced gains and losses due to other factors such as investment experience differing from the median levels, changes in turnover rates, utilization of early retirement

provisions etc. However this experience varied widely in different sectors of the economy and among different plans so that generalizations at the macro-economic level are not possible.

D Changes In Actuarial Assumptions And Actuarial Cost Methods

As illustrated in Section II C, the reported surplus or unfunded liability is very sensitive to the actuarial assumptions used in the valuation, and particularly to the assumed rate of investment return.

As noted in Section III C above, a typical investment return assumption in the early 1970s was 5%, but by the mid 1980s an investment return assumption of 7% was not unusual. In the case illustrated in Section II C, an increase in the assumed rate of investment return from 5% to 7% (maintaining the gap between investment return and salary increase assumptions) reduces the reported accrued liabilities by about 17% (from $160 million to $133 million). The impact of such a change on a flat benefit or career average earnings type plan would be relatively greater.

In most cases the increase in the assumed rate of investment return would not have been made in a single valuation, but would have been made in several stages, so that the related actuarial gains (and consequently, in many cases, the funding surplus) would also have emerged in stages.

Practice with regard to actuarial cost methods (discussed in Section II B) has also changed. In the earlier part of the period under review it was quite common to fund plans on the basis of the 'level premium' or 'projected benefit' actuarial cost method. However many of these plans have converted to the 'accrued benefit' or 'unit credit' actuarial cost method. Since the accrued benefit method generally results in a lower level of pre-funding, a change to this method usually results in an actuarial gain.

It should perhaps be noted that actuarial gains (or losses) arising from changes in actuarial assumptions and methods are quite different in nature from experience gains and losses. They do not represent a real change in the financial condition of the plan, but only a change in its reported financial condition.

The trend towards less conservative actuarial bases arose in part from the increasing awareness and sophistication of plan sponsors and their aversion to undue conservatism and in part as a reaction to favourable economic experience, particularly during the latter part of the period under review. Evolving practice in the actuarial profession led to the increasing use of 'explicit' rather than 'implicit' actuarial assumptions, and the explicit actuarial bases frequently embodied less conservatism than the bases previously used.

Should the Canadian economy undergo a prolonged less favourable period (from the standpoint of pension funding), the reported financial condition of pension plans could deteriorate significantly due both to experience losses and to a likely reversion to more conservative actuarial bases.

E Gains Related to Workforce Reductions

It has been suggested that a significant source of pension plan surpluses in recent years has been workforce reductions - particularly those that were experienced during the recession of 1982-84.

The termination of employees who had not satisfied the plan's vesting requirements (to the extent that such terminations exceed normal turnover) results in an experience gain equal to the accrued liability previously established for the employees affected (minus, in contributory plans, the employees' own contributions with interest).

Even where some of the terminated employees are entitled to a vested pension, they typically lose entitlement to subsidized early retirement benefits and this too produces an experience gain. In a final average earnings plan, the vested pension will be based on earnings during the period preceding termination (rather than on the projected earnings prior to retirement on which funding was based), which represents an additional source of experience gains. In the case of contributory plans, many terminated employees would receive only a refund of their own contributions with interest, or a deferred pension of equivalent value.

Workforce reduction situations are all different, so that it is difficult to generalize about the effect on pension plan surpluses. However it is the view

of the authors that, in dollar terms, the significance of this source of surplus has been overstated. The typically low age and relatively short service of the laid off employees is the reason for the relatively minor impact on surplus.

A study made for a flat benefit plan covering an employee group with a fairly typical profile (an average age of about 40 and average service of about 15 years) showed that, where accrued liabilities are calculated using typical assumptions including a 6% investment return and quite low rates of turnover, the 36% of employees with less than ten years of service accounted for less than 3% of the plan's total accrued liabilities for active members. Accordingly the laying off of even a substantial portion of short-service employees would not constitute a major source of surplus, particularly in relation to investment gains.

However it is quite possible that in some cases where the layoffs were severe and extended beyond the 'low age - short service' category of employees the impact on surplus was significant, particularly where the plan provided generous early retirement benefits which did not apply to the vested laid-off employees. The impact would be relatively larger on final average earnings plans than on career average earnings and flat benefit plans.

F Impact of Revenue Canada Maximum Pension

The final factor contributing to experience gains that will be considered in this section is the maximum pension imposed by Revenue Canada in its requirements for the registration of pension plans under the Income Tax Act (Information Circular No. 72-13R7). This requirement has resulted in actuarial gains for a substantial number of pension plans, almost exclusively of the final average earnings type.

In accordance with these registration requirements, the maximum annual pension that can be provided by a registered plan is the product of:

(i) 2% of the retiring member's average earnings in the best three consecutive years, or $1,715 if less; and

(ii) the member's years of service (up to 35 years).

Accordingly the maximum annual pension that can be provided to a high-income retiree with at least 35 years of service is about \$60,000 (i.e. 35 times \$1,715). This dollar maximum applies to retiring members whose best 3 years' average earnings exceed about \$86,000. This maximum has been in effect since 1976.

Relatively few retiring members of pension plans are currently affected by this maximum. However Revenue Canada requires, before approving employer funding payments for tax deduction purposes, that the maximum pension be taken into account in determining the projected pensions for all active members.

For example for an employee currently aged 40 with annual earnings of \$35,000, the employee's projected annual earnings at age 65 (assuming 5% annual increases) will be about \$119,000 and the best three years' average earning would be about \$110,000. The maximum percentage of the best three years' average earnings that could be funded for this employee, even ignoring the 35 year maximum, is about 1.56% (i.e. \$1,715 divided by \$110,000). This illustrates that the flat dollar component of the maximum pension has a significant effect on the maximum pension that may be funded.

The maximum pension did not have a significant effect on the funding of pension plans when the present maximum was implemented in 1976. However, as average wage and salary levels slightly more than doubled from 1976 to 1986 and as the assumed rates of future salary increases used in actuarial valuations increased, the impact has become quite substantial.

In Section II C we showed the accrued liabilities and surplus or unfunded liability for a hypothetical 1.5% final average earnings plan. The figures shown in that illustration take into account the present Revenue Canada maximum pension. The following table shows the change in the accrued liability for active employees and in the reported surplus or unfunded liability if it were assumed that the flat dollar component of the Revenue Canada maximum will increase in line with general salary levels after 1994 (as proposed in the June 1987 Federal White Paper on Income Tax Reform). All figures are in millions of dollars.

	Actuarial Basis		
	5% interest 4% salary	7% interest 6% salary	9% interest 8% salary
accrued liability for active employees			
- present maximum pension	113.1	91.2	70.7
- proposed maximum pension	114.2	96.7	82.6
surplus (unfunded liability)			
- present maximum pension	(30.0)	(3.0)	21.8
- proposed maximum pension	(31.1)	(8.5)	9.9

The above table shows that the change in the maximum pension has a much greater impact where relatively high investment return and salary increase assumptions are used than where lower rates are used. Where salaries are assumed to increase at a higher rate, the number of employees affected by the present maximum pension will be higher.

The above example was for an active membership with an average age of 40 and an average salary of $34,000. The percentage increase in the reported accrued liability for active members is quite sensitive to the age distribution and salary distribution of the plan members as well as to the actuarial basis used in the valuation, as is illustrated by the following table.

		increase in accrued active liability		
average age	average salary	5% interest 4% salary	7% interest 6% salary	9% interest 8% salary
35	$34,000	1.6%	9.7%	27.0%
40	$27,000	0.1%	2.4%	9.8%
40	$34,000	1.0%	6.0%	16.8%
40	$41,000	2.8%	11.1%	24.9%
45	$34,000	0.6%	4.4%	12.6%

Variations in the benefit level would result in changes in the percentage increase in accrued liabilities similar to those related to changes in the average salary. The percentage increase in the total accrued liabilities of the plan would also depend on the relative size of the liabilities for active members, pensioners and deferred pensioners.

It is clear from the above table that it is impossible to generalize about the impact of the Revenue Canada maximum pension on the funding of pension plans and on their reported surpluses. For some plans (even of the final average earnings type) the impact has been negligible, for others it has been very significant. However, the experience of the authors is that, for many final average earnings plans which are currently reporting a surplus, the reported surplus would be significantly reduced (or even replaced by an unfunded liability in some cases) if it were assumed that the Revenue Canada maximum pension will increase in line with average earnings levels as proposed in the June 1987 White Paper.

IV DETAILED ANALYSIS OF PENSION PLAN EXPERIENCE

A Introduction

This section is devoted to a review of available historical data in order to examine:

- The development of the surplus and deficiency position of employer-sponsored pension plans in the past 15 years,

- The extent of inflation protection provided by employer-sponsored pension plans; and

- To investigate any possible relationship between these two factors.

The study covered the past 15 years so as to include both the period of general market slump of 1973-1974, as well as the recent period of market advancement. In this study, the amount of 'surplus' is measured by the excess of pension plan assets over liabilities, calculated on an ongoing basis using the actuarial basis specified for pension plan funding purposes.

Three major sources of retiree income are government-provided benefits, employer-sponsored pension plan benefits, and income from personal savings. The reason the current study is only concerned with the inflation protection afforded by employer-sponsored pension plans is manifold. Firstly, government-provided benefits (both Old Age Security benefits, and Canada/Quebec Pension Plan benefits) are fully indexed by inflation. Personal savings are typically invested in bank accounts and other fixed interest rate investments. The returns of these vehicles are well correlated with inflation. Thus, it is logical to examine how much inflation protection is provided by employer-sponsored pension plans.

Secondly, past statistics show that, although the Canada/Quebec Pension Plans cover a greater percentage of the working population than employer-sponsored pension plans, the contributions into employer-sponsored pension plans are twice the size of the contributions into the C/QPP (cf. Table 3).

When RRSP contributions are added, the total contributions into private pension plans are more than three times the size of the contributions into the C/QPP. Furthermore, in 1985, for example, the reserve in pension trusts was more than double the total of reserves for all other retirement instruments, including C/QPP, RRSPs and individual annuities (cf. Table 4). If the size of contributions and reserves is indicative of the amount and the security of the retirement benefits provided by the respective instrument, then it is critical to ascertain the inflation protection measure of this most important component of retirement income.

In this study, we analyze both the statistics on Ontario pension plans as well as on all pension plans in Canada. This is because Ontario data for some topics are not currently readily accessible. However, as shown in Table 5, Ontario plans cover a large proportion of the participant population. Furthermore, pension legislation and practice are quite similar among the provinces, so it is likely the experience of all Canadian plans is representative of that of Ontario plans. On issues where both Ontario data and all Canada data are available, the Ontario results are in line with those for all Canada.

B Brief Description of Statistics Used

For conducting this detailed study, we analyzed statistics from five separate sources:

1. Statistics Canada. Pension Plans in Canada.

This is a series of surveys performed by the Pension Section, Labour Division, Statistics Canada, based on a wide range of data on employer-sponsored pension plans. These data are developed jointly by Statistics Canada and the Pension Commissions/Boards of the provinces in Canada.

2. Statistics Canada. Trusteed Pension Funds: Financial Statistics.

This is a series of surveys performed by Statistics Canada on trusteed pension funds in Canada. The assets covered by these surveys represent approximately 55% of the reserves of all employer-sponsored pension plans, the remaining 45% being held by insurance companies or under the consolidated revenue arrangements used for certain public sector plans.

3. Pension Commission of Ontario. Study on Actuarial Assumptions and Funded Status.

This is a series of studies performed by the Pension Commission of Ontario on pension plans registered in Ontario. In the studies after 1977, only plans with 1,000 or more active members are included. The studies are based on data contained in the actuarial reports filed with the Commission for self-administered pension plans. It should be noted that the 1987 results are preliminary, as of the date of the final draft of this report.

4. Financial Executives Institute Canada. Report on Survey of Pension Plans in Canada.

This is a series of surveys conducted by the Financial Executives Institute Canada on private pension plans (mostly for salaried employees) covering a broad cross-section of industries. The most recent published survey in 1983 covered about 10% of the Canadian labour force and 38% of 1982 assets of trusteed pension funds in Canada.

5. Hewitt Associates. Survey of Pension Increases after Retirement.

This is a survey conducted by Hewitt Associates in 1987 of the salaried pension plans of 284 Canadian companies with nearly half a million participants, covering broad cross-section of industries. The size of pension plans covered range from under 100 to over 5,000 members.

It is important to point out that, because of the different data base used in the above surveys, the results may not be comparable. However, the

authors take comfort in the consistency of the trends shown in the different surveys and believe that the conclusions derived in the study are valid.

It may be appropriate at this point to call the attention of readers to a study performed by Michael C. Wolfson of Statistics Canada for the Ontario Task Force on Inflation Protection. Many of his observations are comparable to the conclusions of the authors of this study.

C .. Pension Fund Experience

Section III has already identified the major factors of experience gain/(loss) for pension plans. We shall provide a more in-depth analysis of two of these factors: investment experience and salary experience. As shown in Table 6, one or the other of these two factors was considered to be the principal contributor to about two-thirds of the gain/(loss) experience. The factors not studied here, including employee turnover and mortality experience, are highly reflective of the characteristics of the plan sponsor and the industry involved. Thus, the impact of these factors on the aggregate gain/(loss) for all plans are both not readily available, and perhaps not too meaningful. Table 7 shows a gradually increasing pattern of the active population of pension plans. Table 8 shows the ratio of active population to inactive population has been relatively stable. Thus, it is expected that in the aggregate, the net impact of turnover and mortality experience on all pension plans is relatively minor.

Our calculation showed that the investment return for all Canadian pension plans was poor during 1973, 1974, and 1981, and was very good in recent years (cf. Table 9). After netting out the administration and investment expenses, the excess of the net investment return over the interest rate assumptions (cf. Table 10 and Table 10a) would provide asset gains or losses for the pension plans (cf. Table 11). These gains and losses are responsible for the market value of assets dipping below the book value in years 1974 through 1977 (cf. Table 12). It should be noted that, depending on the asset method used, these gains or losses may be phased into the actuarial asset value over several years. Thus, the impact of the total gain/(loss) is delayed. Furthermore, the amount of asset loss phased in each year is not fully recognized in the pension cost

for that year. It is amortized over five to 15 years. This further delays the impact of total asset loss on pension cost. We shall limit our present analysis to the causes for the total asset gain/(loss) each year. An analysis of the statistics show that the change in the stock investment is noticeably affected by the average market return on stocks over the previous three, four, or five years. One reason for this may be that most pension plans phase in market gain/(loss) over a period of three to five years.

Table 13 contrasts the asset portfolio composition against the historical market returns for the respective asset classes. There is a trend toward more stocks in recent years following years of higher average stock returns and a move away from such vehicles in earlier years of this study following years of unfavourable average returns. Separate analysis of public sector funds and private sector funds produce similar results.

A comparison of the expected return (calculated based on the portfolio composition and market returns shown in Table 13) and the actual return (calculated in Table 9) of the pension investments (cf. Table 14) shows that the pension funds in general are not outperforming the market, given their investment policies. This is not surprising since pension funds and institution investors constitute a major portion of the market.

D Salary Experience

Statistical data on salary increases to participants of pension plans are very sketchy at best. A comparison of the wage and salary index (cf. Table 1) and the salary scale assumptions (cf. Table 15 and Table 15a) indicates that, until the past few years, actual pay increases have been higher than what have been assumed for most pension plans. In particular, there were sizable salary losses for all plans in the aggregate for 1974, 1975, 1976, 1980, 1981.

Unlike asset gains/(losses), which, as noted earlier, can be phased into the actuarial asset value over several years, these salary losses need to be taken into the unfunded liability immediately. The total of the salary loss and the phased-in portion of the investment loss is then amortized over five to 15 years. These combined losses are responsible for the increase in the unfunded

liability in 1974 and 1975. As a result of increased funding and better investment climate, the ratio of unfunded liability to accrued liability subsequently decreased steadily (cf. Table 16 and Table 16a).

Table 17 and 17a summarize the experience deficiencies shown in surveys performed by the Financial Executives Institute Canada, and the Pension Commission of Ontario. There is a decreasing trend of experience deficiency expressed as a percentage of the total liability.

E Consequence Of Experience Deficiencies And Surpluses

Theoretically, pension plan experience deficiencies may lead to any of several possible courses of action by the plan sponsors:

(a) To reduce prospectively retirement benefits provided;
(b) To increase employee contributions;
(c) To increase employer contributions;
(d) To liberalize pension funding policies in order to delay cost to future management.

As will be evident in later discussions, alternative (a) was not taken by plan sponsors. Both the benefits for current and future retirees did not seem to suffer much setback on account of bad plan experience during 1973 to 1975. Furthermore, surveys done by the Financial Executives Institute Canada (cf. Table 18) indicate that the employee contribution as a percentage of pay remained quite stable throughout the period covered by the study. Table 19 shows that employer contributions increased relative to the employee contributions in years following adverse plan experience. However, judging from the ratio of the contributions, the increase in employer contributions does not seem adequate to cover the full cost increase completely. The rest of the cost seems to have been deferred via a liberalization of actuarial assumptions (cf. Table 20). In recent years, when plan experience has been very favourable, there is sizable decrease in employer cost.

F Overview of Inflation Protection

Inflation protection of retirement income can come in several different stages: during the active career of the employee, as well as after the employee's retirement.

During the active career of an employee, benefit increases may originate from pay increases for the employee covered by a plan providing benefits related to the final (or final-average) pay of the employee. For an employee covered by a plan with benefits related to the career average earnings of the employee, pay increases, by themselves, may not cover the full impact of inflation. By means of regular benefit updates, many plan sponsors have increased plan benefits to virtually the same level as those of final average plan. For hourly employees covered by plans providing benefits equal to a certain benefit rate times years of service at retirement, the benefit rates are usually negotiated upward at regular intervals.

After retirement, inflation protection may be provided by ad hoc increases at regular intervals, by formulas indexed to some external measure such as the Consumer Price Index (CPI), or by increases tied to investment returns in excess of some base rate.

We shall analyze the various avenues of inflation protection by examining the following:

(a) Benefit type changes;
(b) Benefit rate increases in each type of benefit structure; and
(c) Post-retirement increases.

1. Benefit Type Changes

Table 21 summarizes the number of participants covered by the various types of pension plans. There is an evident shift toward those types providing more explicit recognition of inflation during the active career of the employee. As is to be expected, the pace of the shift is not dramatic.

2. Benefit Rate Increases

As shown in Table 22, the benefit rates for unit benefit plans are rather stable over the years, with a slight drift toward higher benefits. For flat dollar benefit plans there are significant benefit rate increases over the years (cf. Table 23). The average increase over the period under study exceeds the average inflation rate for the same period. The rate of benefit increase exceeds the inflation rate during the 1970s and lags behind inflation in the 1980s.

3. Post-Retirement Increases

Based on a survey performed by Hewitt Associates, 70% of Canadian employers granted a retiree benefit increase during 1980-1984 (cf. Table 24). On average, a Canadian company granted two such increases during 1980-1984. Sixty percent of Canadian companies granted four or more increases and 28% granted nine or more increases during 1977-1986 (cf. Table 25). When asked if they would grant an increase in 1987, 32% of Canadian companies responded 'yes'. As shown in Table 26, the retiree benefit increases cover about one-third to one-half of the inflation rate, with a higher proportion of inflation being replaced in recent years.

Based on the 1983 Survey of Pension Plans in Canada conducted by the Financial Executives Institute Canada, more than 77% of the plans have made inflation adjustments and one-third indicate that adjustments are currently being considered.

Almost 79% of the adjustments were made on an ad hoc basis at the employer's discretion. Approximately 10% were negotiated through collective agreements and 9% were made through a standard provision of the plan. About 73% of the payments were determined as a percentage of existing pensions and 24% in flat amounts. The annualized rates of adjustment most recently paid expressed as a percentage of pension were reported as follows:

	% of Responses
Under 2.5%	14.1
2.5% to 4.9%	23.7
5.0% to 7.4%	35.6
7.5% to 10.0%	26.6
	100.0
Average Rate	5.5
Number of Responses	183

G Conclusions

In conclusion, statistics indicate that pension plan surpluses and deficiencies are generated mostly as a result of changes in the general economic and investment environments. Employee benefits have not been adversely affected by unfavourable economic climates. The cost increases have partly been absorbed by current management, and have partly been deferred to future management. In time of favourable conditions, employer contributions were decreased more noticeably. While most plans do not have specific provisions tying retiree benefit increases to some fixed indexed formula, ad hoc increases were granted on a regular basis covering one-third to one-half of inflation rate.

Statistics do not indicate any direct link between plan experience and inflation protection measures. In fact, active benefit increases for flat dollar plans were higher during periods of adverse plan experience, and lower in recent years of more favourable experience.

V CONCLUSIONS

A Introduction

This section is devoted to conclusions the authors have drawn from the study. However, first it may be appropriate to outline some major limitations to the study.

B Major Limitations to the Study

(i) Global Analysis of All Pension Plans in Ontario or in Canada

Limited by the availability of data, the current study is based on all pension plans in Ontario or in Canada. While the authors believe the results would still be representative of plans in Ontario, how representative they actually are may be open to subjective interpretation.

For the study, statistics on all pension plans as a whole were taken from different sources. Thus, the complete comparability of the various data is impossible. Furthermore, because the composition of the pension plans may change from year to year, some yearly asset/liability developments of the continuing plans may be masked. The experience trends shown in the study should generally still be valid. However, the actual magnitude of items that need direct comparison of results in two or more successive years (e.g., investment return, surplus, benefit increase, etc.) may deviate from those shown in the study. Such information can only come from continuous tracking of representative pension plans through the entire period under the study. It was the original intention of the authors to perform such an analysis. Unfortunately, such an attempt had to be aborted due to difficulties experienced in collecting the necessary data.

(ii) The Applicability of Past Experience

A critical question must be asked when analyzing past experience to help formulate future policies: Are there changes in the economic structure of the country that may significantly distort the validity of the process of projecting the past into the future? Some recent economic happenings that may change the course of pension experience include:

(a) greater investment market volatility;
(b) greater investment return expectations;
(c) greater union demand for inflation protection; and
(d) aging of the population.

(a) Better communication facilities, the expansion of investment markets, more investment devices -- one or more of these factors may have contributed to the greater volatility of the investment market. It would be dangerous to formulate policies on pension plans based on the upswing of the investment market for the past few years without due regard to a market reversion.

(b) A review of actuarial assumptions used shows a trend of gradual liberalization in the past 15 years. Can this trend be expected to continue?

(c) There is greater union demand for inflation protection. While most retiree benefit increases in the past have been granted on an ad hoc basis, there is a definite push toward automatic indexing of these benefits.

(d) Statistics in the book, The Seniors Boom, published by Statistics Canada, show the annual growth rates of the senior groups (irrespective of whether we are considering a group of age 65 and over, 75 and over, or 85 and over) are more than double that of the total population in Canada. This, coupled with increasing longevity, means the increasing pension burden would have to be carried by a shrinking workforce.

Each of the above mentioned factors would have a definitive impact on pension plans. These plans would produce future experience that is significantly different from that of the past 15 years. We feel that ideally, the only way to test the impact of these added variants properly is to perform simulation studies. These studies provide better insight into the behaviour of a pension plan under new economic environments. A simulation study was not conducted in this instance and the authors have therefore drawn their conclusions without the benefit of this additional information.

C Conclusions

(i) Surplus and Inflation Protection

An analysis of past statistics shows there is little correlation between inflation and investment return. Generally, in times of high inflation, pension fund investment performance has tended to be poor, while the reverse seems true for periods of low inflation. This implies that plan surplus may not be available at the time when it is needed to help finance inflation protection. On the other hand, past ad hoc retiree benefit increases have been voluntarily granted by pension plan sponsors even in years of plan deficiencies, and have typically reflected the actual inflation rate, covering about one-third to one-half of such increases.

(ii) Source and Use of the Surplus

Major sources of the current surplus in many pension plans include:

(a)market upswing in the recent past;
(b)conservative funding assumptions;
(c)gradual liberalization of funding actuarial assumptions; and
(d)non-escalation of the Revenue Canada maximum benefit limit.

Any of these factors may disappear in the future. In the past, conservative funding assumptions were chosen partly to enhance the security of the plan and partly to provide for future benefit increases, including ad hoc retiree benefit increases. Through the years, experience gains and reduction in liability due to liberalization of actuarial assumptions have helped toward paying for benefit increases. Such funding cushions are being gradually minimized. On the other hand, hourly benefit rate increases will be continued and the Revenue Canada maximum benefit limit is expected to be indexed beginning in 1995. Plan sponsors may wish to maintain reserves to help finance these anticipated plan increases, and current surplus is not totally available to help finance further benefit increases (such as indexed benefits).

(iii) Realistic Measure of Surplus

The current study is directed toward analyzing the surplus of the pension plans on the funding basis. For many plans, the comparison of assets and liabilities under this basis may not provide a realistic picture of the funded status of the plan. Because of regulatory requirements, the costs calculated under the funding basis only reflect plan provisions existing on the valuation date. All future benefit increases are not reflected in the cost for the current year. These increases may include:

(a) benefit rate increases for a flat dollar plan;
(b) benefit updates for a career average pay plan;
(c) ad hoc retiree benefit increases; and
(d) future increases in the Revenue Canada maximum benefit limit.

Fully recognizing the impact of these anticipated increases will significantly increase the liability shown for the plan.

On the other hand, the actuarial assumptions used in funding calculations are typically conservative. Replacing these by realistic assumptions will significantly reduce pension liabilities.

Perhaps the most appropriate comparison of the funded status of a plan is obtained by recognizing in the pension cost all anticipated future benefit

increases, and using all realistic assumptions in the calculations. A valuation performed under such a basis will provide not only a true assessment of the surplus or deficit position of the plan, but also the most realistic pension cost for the year, without cost shifting to past or future managements.

The new accounting principles issued by the Canadian Institute of Chartered Accountants in 1986 better meet the criterion outlined in the previous paragraph and would provide a more realistic measure of the surplus of pension plans.

(iv) ·Final Word

The impact of indexed inflation protection policies on pension plans is significant and long lasting. The development of pension plan surplus is complex. Our current study should only be viewed as a first step toward finding answers to these critically important issues, not just for Ontario, but for all of Canada.

VI ADDENDUM – IMPACT OF THE 1987 MARKET CRASH

After conclusion of the study, a question was posed to the authors to assess the impact of the October 1987 stock market crash on the surplus position of pension plans. Before addressing this issue, we must emphasize that it is not possible to know the full impact of this current market upheaval at this time, especially in view of the fact that it is not certain whether the crash is over yet. A review of past history shows that the decrease in stock price (Standard and Poor 500 in the United States) was only 8.4% in 1929. However, the drops in subsequent years (1930 and 1931) were 24.9% and 43.3% respectively.

If the market would stabilize at its current level, then the depletion in the surplus position for many pension plans might be containable. As of the end of October, the loss in the market value of most pension plans during the first ten months of 1987 was less than ten percent of the asset value on January 1, 1987. For many plans, the surplus at January 1, 1987 is over 25% of liabilities. These plans would still be in a surplus position after the crash. Even for plans with an unfunded liability, if no benefit improvements have been planned, then, with three to five year phase-in of the market loss and five to fifteen

year amortization of the phased-in amount, the cost impact of the current market loss may not be as drastic as feared.

However, as a result of the introduction of pension reform legislation, and the favourable investment results of the first three quarters of 1987, many sponsors may have made sizable pension plan improvements, either voluntarily or under union pressure. How these sponsors can cope with the double barreled impact of hefty liability increase and severe asset drop should not be a minor concern for the Ontario Government.

TABLE 1

AVERAGE ANNUAL RATES OF CHANGE / RETURN

	Nominal Values					
Year	Consumer Price Index	Wage & Salary Index	Common Stock Index	Canada Long Bonds	91 Day T Bills	SEI Median Return
	%	%	%	%	%	%
1967	4.2	6.8	18.1	-2.2	4.6	7.6
1968	4.0	7.3	22.5	-0.5	6.4	9.4
1969	4.7	6.3	-0.8	-2.3	7.4	-3.2
1970	1.5	8.9	-3.6	22.0	6.7	1.3
1971	4.9	10.7	8.0	11.6	3.8	12.5
1972	5.1	7.7	27.4	1.1	3.6	18.4
1973	9.3	6.9	0.3	1.7	5.3	-2.1
1974	12.3	13.4	-25.9	-1.7	8.1	-12.7
1975	9.5	14.4	18.5	2.8	7.5	13.2
1976	5.9	11.2	11.0	19.0	9.4	12.4
1977	9.5	8.0	10.7	6.0	7.9	8.7
1978	8.4	6.4	29.7	1.3	8.8	13.5
1979	9.8	8.6	44.8	-2.6	12.2	15.0
1980	11.2	11.5	30.1	2.1	13.8	18.3
1981	12.1	11.4	-10.3	-3.0	20.0	1.5
1982	9.3	9.5	5.5	43.0	15.6	21.1
1983	4.6	7.2	35.5	9.6	9.9	20.0
1984	3.8	3.1	-2.4	15.1	12.1	8.8
1985	4.4	4.0	25.1	25.3	9.9	23.5
1986	4.2	2.5	9.0	17.5	9.5	12.8
1967-71	3.8	8.0	8.4	5.3	5.8	5.4
1972-76	8.4	10.7	4.5	4.3	6.8	5.2
1977-81	10.2	9.2	19.4	0.7	12.4	11.2
1982-86	5.2	5.2	13.7	21.6	11.3	17.1
1972-86	7.9	8.3	12.4	8.5	10.2	11.1
1967-76	6.1	9.3	6.4	4.8	6.3	5.3
1977-86	7.7	7.2	16.5	10.6	11.9	14.1
1967-86	6.9	8.3	11.4	7.7	9.1	9.6

Source: Canadian Institute of Actuaries: Report on Canadian Economic Statistics 1924-1986.

TABLE 2

AVERAGE ANNUAL RATES OF CHANGE / RETURN

Year	Consumer Price Index	Real Values - Net of CPI Increases				
		Wage & Salary Index	Common Stock Index	Canada Long Bonds	91 Day T Bills	SEI Mediam Return
	%	%	%	%	%	%
1967	4.2	2.5	13.3	-6.1	0.4	3.3
1968	4.0	3.1	17.7	-4.4	2.3	5.2
1969	4.7	1.6	-5.2	-6.7	2.6	-7.5
1970	1.5	7.3	-5.0	20.2	5.1	-0.2
1971	4.9	5.5	3.0	6.4	-1.0	7.3
1972	5.1	2.5	21.2	-3.8	-1.4	12.7
1973	9.3	-2.2	-8.2	-6.9	-3.6	-10.4
1974	12.3	0.9	-34.1	-12.5	-3.7	-22.3
1975	9.5	4.5	8.2	-6.1	-1.8	3.4
1976	5.9	5.0	4.8	12.4	3.3	6.1
1977	9.5	-1.3	1.1	-3.2	-1.5	-0.7
1978	8.4	-1.8	19.7	-6.5	0.4	4.7
1979	9.8	-1.1	31.8	-11.3	2.2	4.7
1980	11.2	0.2	17.0	-8.2	2.3	6.4
1981	12.1	-0.6	-19.9	-13.5	7.0	-9.5
1982	9.3	0.3	-3.4	30.9	5.8	10.8
1983	4.6	2.6	29.6	4.8	5.1	14.8
1984	3.8	-0.6	-5.9	10.9	8.0	4.9
1985	4.4	-0.3	19.9	20.0	5.3	18.4
1986	4.2	-1.6	4.6	12.8	5.1	8.3
1967-71	3.8	4.0	4.4	1.4	1.9	1.5
1972-76	8.4	2.1	-3.6	-3.7	-1.5	-3.0
1977-81	10.2	-0.9	8.4	-8.6	2.1	1.0
1982-86	5.2	0.0	8.1	15.6	5.8	11.3
1972-86	7.9	0.4	4.1	0.6	2.1	2.9
1967-76	6.1	3.0	0.3	-1.2	0.2	-0.8
1977-86	7.7	-0.4	8.2	2.8	3.9	6.0
1967-86	6.9	1.3	4.2	0.8	2.0	2.6

Source: Canadian Institute of Actuaries: Report on Canadian Economic Statistics 1924-1986.

TABLE 3

COMPARATIVE STATISTICS, CANADA AND QUEBEC PENSION PLANS, EMPLOYER - SPONSORED PENSION PLANS AND REGISTERED RETIREMENT SAVINGS PLANS

	C/QPP	Employer-sponsored pension plans	RRSP
1977			
Number of Members		4,193,244	1,291,348
Percentage of Labour Force	N/A	39.6%	10.5%
Total Contributions *		6,215	2,115
1979			
Number of Members	10,412,026	4,475,429	1,725,959
Percentage of Labour Force	92.2%	39.7%	15.3%
Total Contributions *	3,087	7,585	3,091
1981			
Number of Members	10,973,731	4,657,935	1,954,002
Percentage of Labour Force	92.0%	39.1%	16.4%
Total Contributions *	3,971	9,393	3,879
1983			
Number of Members	10,722,472	4,564,623	2,329,201
Percentage of Labour Force	87.4%	37.2%	19.0%
Total Contributions	4,586	10,486	4,997

* $'000,000 omitted

Source: Statistics Canada. Trusted Pension Funds: Financial Statistics.

Note: Many members are covered by more than one class of plans.

TABLE 4

ACCUMULATED RESERVES, CANADIAN RETIREMENT INCOME SYSTEM, 1985

Retirement Program	Reserve Amount ($'000,000)	As Percentage of Total
	$	%
Canada/Quebec Pension Plans[1]	41,514	14.6
Employer-Sponsored Pension Plans		
- Trusteed	108,043	
- Insurance Companies[2]	26,946	
- Canadian Government Annuities[3]	679	
- Consolidated Revenue Funded[4]	57,012	
- **Subtotal**	**192,680**	**67.6**
RRSP's[5]	46,327	16.2
Individual Annuities[5,6]	4,629	1.6

1. Source: Health and Welfare Canada and Quebec Pension Board.

2. Source: Report of Superintendent of Insurance For Canada: Annual Report on Insurance, Quebec Inspector General of Financial Institutions, and Financial Institutions Division. Ontario Ministry of Consumer and Commercial Relations.

3. Actuarial Services, Employment and Immigration Canada.

4. Source: Supply and Services, Canada and provincial governments' financial reports, adjusted to December 31, 1985.

5. Source: Financial Institutions, Financial Statistics, Statistics Canada.

6. Includes life annuities and fixed term annuities.

TABLE 5

PROVINICIAL DISTRIBUTION OF PLAN MEMBERS

	1970	1974	1976	1978	1980	1982	1984
Total Number of Plan Members ('000)	2,822	3,424	3,902	4,193	4,475	4,658	4,565
Percentage Distribution							
Newfoundland	1.3	1.4	1.4	1.4	1.4	1.5	1.5
Prince Edward Island	0.3	0.3	0.3	0.3	0.2	0.3	0.3
New Brunswick	2.3	2.3	2.3	2.2	2.2	2.3	2.4
Nova Scotia	3.4	3.2	3.1	3.0	3.0	3.1	3.0
Quebec	26.2	27.4	27.7	26.7	25.7	25.2	24.1
Ontario	43.3	42.2	40.3	39.8	39.3	38.5	39.1
Manitoba	4.3	3.8	3.6	4.1	3.8	4.0	4.1
Saskatchewan	3.0	2.8	2.7	2.9	2.9	3.1	3.3
Alberta	6.3	6.4	6.7	7.3	8.1	9.1	9.9
British Columbia	8.6	9.4	11.2	11.7	12.2	12.2	11.5
Yukon and Northwest Territories	0.2	0.2	0.1	0.2	0.1	0.2	0.3
Outside Canada	0.8	0.6	0.6	0.4	0.4	0.5	0.5

Source: Statistics Canada. Pension Plans in Canada.

TABLE 6

PRINCIPAL SOURCE OF PENSION PLAN EXPERIENCE GAIN / (LOSS)

Source	Percentage of Responses Attributing Experience Gain/(Loss) to the Respective Sources		
	1978 Survey	1980 Survey	1981 Survey
	%	%	%
Salary	49.1	36.0	43.0
Investment	31.1	25.0	26.1
Early Retirement	12.1	10.6	5.4
Death, Disability, Turnover	5.2	11.9	4.3
Others	2.5	16.5	20.5

Source: Financial Executives Institute Canada Survey of Pension Plans in Canada.

TABLE 7

NUMBER OF TRUSTEED PENSION PLANS AND MEMBERS COVERED

Year	Number of Plans	Number of Members ('000)	Percentage Increase In Membership
	#	#	%
1970	3,859	1,771	
1971	3,946	1,901	7.3
1972	3,778	1,919	0.9
1973	3,859	2,050	6.8
1974	3,680	2,307	12.5
1975	3,622	2,416	4.7
1976	3,543	2,667	10.4
1977	3,403	2,757	3.4
1978	3,302	2,824	2.4
1979	3,245	2,964	5.0
1980	3,256	3,048	2.8
1981	3,364	3,099	1.7
1982	3,470	3,115	0.5
1983	3,590	3,119	0.1
1984	3,684	3,160	1.3
1985	3,779	3,199	1.2

Source: Statistics Canada. Trusteed Pension Funds: Financial Statistics.

TABLE 8

NUMBER OF PENSIONERS IN EMPLOYER - SPONSORED PENSION PLANS

Year	Number of Pensioners *	As A Percentage Of All Members
	#	%
1973	605,785	30
1975	690,543	29
1977	725,245	26
1979	828,993	28
1981	901,985	30
1983	1,007,108	32

* Includes all tax return filers receiving benefits from employer pension plans.

Source: Revenue Canada, Taxation Statistics.

TABLE 9

INVESTMENT RETURN FOR TRUSTEED PENSION FUNDS ($'000,000)

Year	Market Value Of Assets	Investment * Return	Return Percentage	Administrative Expenses	Net Return Percentage
	$	$	%	$	%
1972	15,098				
1973	16,303	360	2.3	26	2.1
1974	16,352	(1,008)	(6.2)	90	(6.7)
1975	19,841	1,930	10.7	64	10.3
1976	24,716	2,844	12.8	42	12.6
1977	29,538	2,470	9.1	56	8.9
1978	36,203	3,873	11.8	64	11.6
1979	44,113	5,035	12.5	110	12.3
1980	53,958	6,783	13.8	100	13.6
1981	58,889	1,766	3.1	99	3.0
1982	75,625	13,518	20.1	165	19.9
1983	92,144	13,918	16.6	156	16.4
1984	102,516	8,669	8.9	211	8.7
1985	124,882	21,329	18.8	510	18.3

* Calculated by the authors based on Statistics Canada data. It includes interest, dividend, realized and unrealized profit, net of realized and unrealized loss.

Source: Statistics Canada. Trusteed Pension Funds: Financial Statistics.

TABLE 10

AVERAGE ACTUARIAL INTEREST RATE ASSUMPTION

	Valuation Year				
	1974	1976	1978	1980	1982
	%	%	%	%	%
1978 Survey	5.4	5.7			
1980 Survey		5.6	5.8		
1981 Survey			6.0	6.4	
1983 Survey				5.9	6.2

Source: Financial Executives Institute Canada. Survey of Pension Plans in Canada.

TABLE 10 (A)

AVERAGE ACTUARIAL INTEREST RATE ASSUMPTION FOR ONTARIO PENSION PLANS

	1977 Study (1974 - 1976 Valuation)	1984 Study (1981 - 1983 Valuation)	1987 Study * (1983 - 1986 Valuation)
Number of Plans Covered	150	219	190
Distribution by Interest Rate Used			
%	%	%	%
4.0 - 4.9	17.3	1.4	.5
5.0 - 5.9	48.7	19.6	8.9
6.0 - 6.9	27.3	47.5	38.3
7.0 - 7.9	6.0	25.1	43.7
8.0 and over	.7	6.4	8.4
Average interest rate	5.45	6.36	6.63

* Preliminary results

Source: Pension Commission of Ontario. Study on Actuarial Assumptions and Funded Status.

TABLE 11

TOTAL ASSET GAIN FOR TRUSTEED PENSION PLAN

	Market Value Of Assets ($'000,000)	Net Investment Return Percentage	Average* Interest Rate Assump.	Percentage Asset Gain
1972	15,098			
1973	16,303	2.1	5.2	(3.1)
1974	16,352	(6.7)	5.3	(12.0)
1975	19,841	10.3	5.4	4.9
1976	24,716	12.6	5.5	7.1
1977	29,538	8.9	5.6	3.3
1978	36,203	11.6	5.7	5.9
1979	44,113	12.3	5.8	6.5
1980	53,958	13.6	5.9	7.7
1981	58,889	3.0	6.0	(3.0)
1982	75,625	19.9	6.1	13.8
1983	92,144	16.4	6.2	10.2
1984	102,516	8.7	6.3	2.4
1985	124,882	18.3	6.4	11.9

* Estimated by the authors from Table 10.

TABLE 12

COMPARISON OF MARKET VALUE AND BOOK VALUE OF TRUSTEED PENSION FUNDS ($'000,000)

Year	Market Value	Book Value	Market Value / Book Value
1972	15,098	14,050	1.075
1973	16,303	16,171	1.008
1974	16,352	18,284	0.894
1975	19,841	21,210	0.935
1976	24,716	25,234	0.979
1977	29,538	29,737	0.993
1978	36,203	35,517	1.019
1979	44,113	43,203	1.021
1989	53,958	51,685	1.004
1981	58,889	61,514	0.957
1982	75,625	71,925	1.051
1983	92,144	84,610	1.089
1984	102,516	96,094	1.067
1985	124,882	109,957	1.136

Source: Statistics Canada. Trusteed Pension Plans: Finanacial Statistics.

TABLE 13

COMPARISON OF PORTFOLIO COMPOSITION OF TRUSTEED PENSION PLANS AND MARKET RETURNS *

Year	Bonds		Stocks		Mortgages		Real Estate	Pooled Funds	Mutual Funds
	Inv** %	Market Return	Inv** %	Market Return	Inv** %	Market Return	Inv** %	Inv** %	Inv** %
1972	49.7	1.1	27.8	27.4	9.2	8.9	6.0	6.9	0.4
1973	47.6	1.7	27.4	0.3	9.6	6.9	7.6	7.5	0.3
1974	46.7	-1.7	26.1	-25.9	10.6	4.5	8.8	7.6	0.2
1975	47.8	2.8	25.0	18.5	11.6	12.2	8.5	6.9	0.2
1976	46.9	19.0	24.6	11.0	13.3	14.2	7.8	7.3	0.1
1977	48.0	6.0	21.5	10.7	13.5	14.6	9.5	7.4	0.1
1978	48.4	1.3	18.9	29.7	13.5	6.8	11.7	7.2	0.3
1979	49.0	-2.6	18.5	44.8	12.5	5.7	13.1	6.3	0.6
1980	49.1	2.1	20.4	30.1	11.2	8.1	12.6	5.9	0.8
1981	46.5	-3.0	21.8	-10.3	10.1	10.0	15.2	5.6	0.8
1982	46.3	43.0	22.1	5.5	9.0	29.2	16.2	5.4	1.0
1983	46.0	9.6	25.6	35.5	7.8	20.5	14.5	5.1	1.0
1984	45.4	15.1	26.1	-2.4	6.7	12.4	16.0	4.6	1.2
1985	46.8	25.3	26.6	25.1	5.8	16.7	15.1	4.3	1.4

* Market returns refer to the rate of investment return for the asset class as a whole, and not the investment return for the assets in pension funds.

** Investment percentages refer to the portfolio distribution of the trusteed pension funds in Canada.

Source: Investment percentages are based on Statistics Canada. Trusteed pension plans: Financial statistics.

Market returns are based on data compiled by the Canadian Institute of Actuaries. Canadian Economic Statistics.

TABLE 14

COMPARISON OF EXPECTED AND ACTUAL RETURNS

Year	Expected Return	Actual Return	SEI Median Return
1973	2.5	2.3	-2.1
1974	-6.0	-6.2	-12.7
1975	9.0	10.7	13.2
1976	15.3	12.8	12.4
1977	9.1	9.1	8.7
1978	8.6	11.8	13.5
1979	9.3	12.5	15.0
1980	10.0	13.8	18.3
1981	0.2	3.1	1.5
1982	29.5	20.1	21.1
1983	18.7	16.6	20.0
1984	9.7	8.9	8.8
1985	22.6	18.8	23.5
Geometric Mean			
All 13 years	10.3	10.1	10.4
Last 5 years	15.7	13.3	14.7

TABLE 15

AVERAGE ACTUARIAL SALARY SCALE ASSUMPTION

	Valuation Year				
	1974	1976	1978	1980	1982
	%	%	%	%	%
1978 Survey	4.0	4.5			
1980 Survey		4.4	4.7		
1981 Survey			4.5	4.9	
1983 Survey				4.3	4.7

Source: Financial Executives Institute Canada. Survey of Pension Plans in Canada.

TABLE 15 (A)

AVERAGE ACTUARIAL SALARY SCALE ASSUMPTIONS FOR ONTARIO PENSION PLANS

	1977 Study (1974 - 1976 Valuation)	1984 Study (1981 - 1983 Valuation)	1987 Study* (1983 - 1986 Valuation)
No. of Plans Covered	64	110	111
	Distribution by Salary Scale Used		
%	%	%	%
1.0 - 3.9	40.6	10.0	2.7
4.0 - 4.9	29.7	20.0	12.6
5.0 - 5.9	22.0	38.2	28.8
6.0 - 6.9	6.3	19.1	40.6
7.0 - 7.9	1.6	5.5	8.1
8.0 - 8.9	0	5.4	5.4
9.0 and above	0	1.8	
Average Salary Scale	4.22	5.49	6.01

* Preliminary results

Source: Pension Commission of Ontario. Study on Actuarial Assumptions and Funded Status.

TABLE 16

UNFUNDED LIABILITY AS A PERCENTAGE OF TOTAL LIABILITY

	Valuation Year					
1982	1970	1974	1976	1978	1980	1982
	%	%	%	%	%	%
1978 Survey	20.0	21.0	20.0			
1980 Survey		34.8	32.6	32.0		
1981 Survey			25.8	22.5	19.4	
1983 Survey				18.2	14.7	16.2

Source: Financial Executives Institute Canada. Survey of Pension Plans in Canada.

TABLE 16 (A)

SURPLUS OR UNFUNDED LIABILITY AS A PERCENTAGE OF TOTAL LIABILITY FOR ONTARIO PENSION PLANS

	1975 Study (1971-1973 Valuations)		1984 Study (1981-1983 Valuations)		1987 Study** (1983-1986 Valuations)	
	Plans With Surplus	Plans With Unfunded Liab.	Plans With Surplus	Plans With Unfunded Liab.	Plans With Surplus	Plans With Unfunded Liab.
Number of Plans	301	642	65	129	114	77
Number of Employees	77,260	406,770	171,406	482,634	335,148	284,922
Total Liability*	$446,760	$3,495,954	$3,002,794	$11,354,696	$10,430,587	$8,946,949
Actuarial Assets*	$504,595	$2,375,103	$3,212,513	$9,147,240	$11,823,096	$7,846,145
Surplus*	$57,835		$209,719		$1,302,509	
Unfunded Liability		$1,120,850		$2,207,456		$1,100,804
As a % of Total Liab.	12.9%	(32.1%)	7.0%	(19.4%)	12.5%	(12.3%)

TOTAL FOR ALL PLANS

	1975 Study	1984 Study	1987 Study
Surplus/(Unfunded)	$(1,063,015)	$(1,997,737)	$201,705
As a % of Total Liab.	(27.0%)	(13.9%)	1.0%
Market Value of Assets	$2,840,962	$12,482,737	$20,383,432
Actuarial Assets	$2,879,698	$12,359,753	$19,669,241

* $'000's omitted

** Preliminary results

Source: Pension Commission of Ontario. Study on Actuarial Assumptions and Funded Status.

TABLE 17

EXPERIENCE DEFICIENCIES AS A PERCENTAGE OF TOTAL LIABILITY

	Valuation Year			
	1974	1976	1978	1980
	%	%	%	%
1978 Survey	9.3	9.8		
1980 Survey		7.1	5.2	
1981 Survey		5.5	2.2	2.6

Source: Financial Executives Institute Canada. Survey of Pension Plans in Canada.

TABLE 17 (A)

EXPERIENCE DEFICIENCY AS A PERCENTAGE OF TOTAL LIABILITY FOR ONTARIO PENSION PLANS REPORTING AN UNFUNDED LIABILITY

	1977 Study (1974 - 1976 Valuation)	1984 Study (1981 - 1983 Valuation)	1987 Study* (1983 - 1986 Valuation)
Number of Plans	642	129	77
Number of Employees	406,770	482,634	284,922
Total Liabilities	$3,495,954	$11,354,696	$8,946,949
Actuarial Assets*	$2,375,103	$9,147,240	$7,846,145
Unfunded Liability	$1,120,850	$2,207,456	$1,100,804
Experience Deficiency	$22,000	$35,000	$2,000
As a % of Total Liability	0.63%	0.31%	0.02%

** Preliminary results

Source: Pension Commission of Ontario. Study on Actuarial Assumptions and Funded Status.

TABLE 18

PENSION CONTRIBUTIONS AS A PERCENTAGE OF PAY

EMPLOYER COST

	Fiscal Year									
	1970	1974	1975	1976	1977	1978	1979	1980	1981	1982
	%	%	%	%	%	%	%	%	%	%
1978 Survey	5.9		7.6	8.0	7.9					
1980 Survey		8.1			9.4	9.9	9.4*			
1981 Survey			7.7				7.7	7.7	7.4*	
1983 Survey								9.3		7.8

* Estimates

EMPLOYEE COST

	Fiscal Year									
	1970	1974	1975	1976	1977	1978	1979	1980	1981	1982
	%	%	%	%	%	%	%	%	%	%
1978 Survey	4.0		4.2	4.0	4.1					
1980 Survey		4.4			4.3	4.2	4.2			
1981 Survey							4.6	4.6	4.6	
1983 Survey								3.1		3.1

Source: Financial Executives Institute Canada. Survey of Pension Plans in Canada.

TABLE 19

COMPARISON OF EMPLOYER CONTRIBUTIONS TO EMPLOYEE CONTRIBUTIONS ($'000,000)

	(1) Employer Contribution*	(2) Employee Contribution	(1) / (2)
1970	658	396	1.66
1973	1,168	595	1.96
1974	1,417	711	1.99
1975	1,873	854	2.19
1976	2,259	1,133	1.99
1977	2,722	1,198	2.27
1978	3,271	1,409	2.32
1979	3,429	1,584	2.16
1980	3,758	1,774	2.11
1981	3,915	2,106	1.86
1982	4,368	2,331	1.87
1983	4,123	2,492	1.65
1984	4,147	2,651	1.56
1985	4,408	2,669	1.65

* Includes employer contributions to both contributory and noncontributory plans.

Source: Statistics Canada. Trusteed pension plans: Financial statistics.

TABLE 20

INCREASE IN AVERAGE INTEREST RATE ASSUMPTIONS

Valuation Year	Interest Rate Increase
	%
From 1974 to 1976	0.3
From 1976 to 1978	0.2
From 1978 to 1980	0.4
From 1980 to 1982	0.3

Source: Financial Executives Institute Canada. Survey of Pensions Plans in Canada.

TABLE 20 (A)

INTEREST RATE AND SALARY SCALE ASSUMPTION CHANGES FOR ONTARIO PENSION PLANS

	1977 Study (1974 - 1976 Valuation)	1984 Study (1981 - 1983 Valuation)	19:7 Study* (1983 - 1986 V luation)
Interest Rate Change			
Number of Plans	154	132	105
Percentage Distribution	%	%	%
Decrease	2.9	1.5	1.3
No Change	58.1	28.0	61.7
< 0.5 % Increase	1.9	2.3	1.3
0.5 - 0.9 % Increase	18.1	15.9	13.0
1.0 - 1.4 % Increase	14.3	14.4	14.9
1.5 - 1.9 % Increase	2.8	14.4	3.9
2.0 - 2.9 % Increase	1.9	18.9	3.9
3.0 % or more increase	1.0	4.6	0
Average Increase	**0.36**	**1.18**	**0.36**
Salary Scale Change			
Number of plans	68	110	182
Percentage Distribution	%	%	%
Decrease	0	0	3.8
No Change	67.6	59.1	72.0
< 0.5 % Increase	1.5	3.6	1.1
0.5 - 0.9 % Increase	8.8	3.6	3.8
1.0 - 1.4 % Increase	5.9	8.2	10.4
1.5 - 1.9 % Increase	3.0	7.3	4.4
2.0 - 2.9 % Increase	8.8	10.9	3.3
3.0 % or more increase	4.4	7.3	1.1
Average Increase	**0.49**	**0.73**	**0.29**

* Preliminary results

Source: Pension Commission of Ontario. Study on Actuarial Assumptions and Funded Status.

TABLE 21

PLAN PARTICIPANTS BY TYPE OF BENEFIT

	1970	1974	1976	1978	1980	1982	1984
Total number of Plan members ('000)	2,822	3,424	3,902	4,193	4,475	4,658	4,565
Percentage Distribution	%	%	%	%	%	%	%
Money Purchase and Profit Sharing	5.7	5.7	5.2	5.3	5.2	5.3	5.9
Flat Benefit	15.0	18.2	19.7	20.6	21.7	22.3	20.4
Career Average	24.2	20.1	17.5	14.3	13.5	13.3	13.0
Final Average	50.9	54.3	56.2	58.7	58.5	58.1	59.6
Others	4.2	1.7	1.4	1.1	1.1	1.0	1.2

Source: Statistics Canada. Pension Plans In Canada.

TABLE 22

BENEFIT RATES IN UNIT BENEFIT PLANS *

Total number of Plan members ('000)	2,116	2,550	2,875	3,061	3,221	3,324	3,313
Percentage Distribution	%	%	%	%	%	%	%
less than 1.00 %	0.6	1.0	1.6	1.4	1.3	0.8	0.7
1.00 - 1.24 %	8.5	6.7	3.4	2.8	1.8	2.3	2.1
1.25 - 1.49 %	3.1	1.5	3.1	3.3	3.5	3.6	3.6
1.50 - 1.74 %	10.5	10.3	7.5	8.4	8.0	8.3	8.0
1.75 - 1.99 %	4.2	3.9	3.7	3.7	3.7	3.9	3.8
2.00 % and over	65.4	70.8	75.4	75.4	76.4	75.6	77.2
Others	7.7	5.8	5.3	5.0	5.3	5.5	4.5

* This includes both final-average and career average plans.

Source: Statistics Canada. Pension Plans in Canada.

TABLE 22 (A)

BENEFIT RATES IN UNIT BENEFIT PLANS WITH
SEPARATE SUMMARIES FOR FINAL AVERAGE AND CAREER AVERAGE PLANS

Benefit Rate As Percentage Of Average Earnings	Percentage Distribution Of Plan Members: Career Average Plans		Final Average Plans	
	1976	1984	1976	1984
	%	%	%	%
less than 1.00 %	6.2	2.3	0.6	0.3
1.00 - 1.24 %	4.3	5.2	3.4	1.4
1.25 - 1.49 %	1.3	2.6	3.7	3.9
1.50 - 1.74 %	17.3	12.8	5.6	7.0
1.75 - 1.99 %	10.0	8.0	2.0	2.9
2.00 % and over	53.0	62.2	79.4	80.5
Others	7.9	6.9	5.1	4.0

Source: Statistics Canada. Pension Plan In Canada.

TABLE 23

BENEFIT RATE IN FLAT BENEFIT PLANS

	1970	1974	1976	1978	1980	1982	1984
Total number of Plan members ('000)	425	604	751	843	973	1,039	931
Percentage Distribution	%	%	%	%	%	%	%
\$ 0 - \$ 4.99	33.3	26.8	11.4	8.0	5.6	3.8	3.7
\$ 5.00 - \$ 6.99	32.7	19.7	13.4	9.1	7.8	5.7	3.7
\$ 7.00 - \$ 7.99	0.7	14.1	2.4	4.3	3.7	5.1	3.7
\$ 8.00 - \$ 9.99	--	3.3	21.4	17.4	9.4	6.6	4.2
\$10.00 - \$11.99	--	6.3	14.7	19.8	14.3	12.6	13.4
\$12.00 - \$13.99	--	0.1	0.6	1.6	5.3	17.6	8.2
\$14.00 - \$15.99	--	0.2	21.1	19.8	24.4	15.1	21.2
\$16.00 - \$17.99	--	--	1.0	0.4	1.4	2.7	4.0
\$18.00 - \$19.00	--	--	--	0.1	0.5	2.2	2.7
\$20.00 and over	--	--	0.3	6.4	10.0	12.4	16.1
Others	33.2	29.5	13.6	13.1	17.5	16.2	19.1
Average Benefit Rate *	**\$4.14**	**\$6.01**	**\$8.28**	**\$10.80**	**\$12.25**	**\$12.97**	**\$14.00**

* Estimate calculated by the authors.

Source: Statistics Canada. Pension Plans In Canada.

TABLE 24

PERCENTAGE OF CANADIAN COMPANIES GRANTING PENSION INCREASES

Year	All Companies	Industrials Only	Non-Industrials Only
	%	%	%
1977	37	32	41
1978	45	32	55
1979	43	32	51
1980	48	37	57
1981	53	41	63
1982	44	31	55
1983	46	33	56
1984	52	34	67
1985	42	31	51
1986	45	26	61
From 1977 to 1987	76	70	82

Source: Hewitt Associates. Survey of Pension Increases After Retirement.

TABLE 25

PERCENTAGE OF CANADIAN COMPANIES GRANTING MULTIPLE PENSION INCREASES, 1977 - 1986

	All Companies	Industrials Only	Non Industrials Only
	%	%	%
1 Increase	18	22	15
2 Increases	13	21	7
3 Increases	17	20	16
4 Increases	14	18	10
5 Increases	7	8	7
6 Increases	4	2	5
7 Increases	3	0	6
8 Increases	3	1	4
9 Increases	4	5	4
10 Increases	15	2	25
More than 10 Increases	2	1	3
Average number of increases granted	5	3	6

Source: Hewitt Associates. Survey of Pension Increases After Retirement.

TABLE 26

CUMULATIVE PENSION INCREASES GRANTED BY CANADIAN COMPANIES

	All Companies	Industrials Only	Non Industrials Only	Cumulative Inflation Rate
	%	%	%	%
1/1/77 - 31/12/86	29	26	32	110
1/1/82 - 31/12/86	12	10	14	29
1/1/84 - 31/12/86	6	5	7	13

Source: Hewitt Associates. Survey Of Pension Increases After Retirement.

The Use of Surpluses in Pension Plans Operating in Ontario

Donovan Waters

CONTENTS

The Use of Surpluses in Pension Plans Operating in Ontario

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I THE NATURE OF THE PROBLEM

The object of this paper is to review how the Ontario courts have dealt with the claim by employers that the employer has the right to withdraw surpluses from his employee defined benefit pension plan, or to utilize surplus to meet his existing and future contribution liabilities to the plan.

The alleged right of withdrawal is commonly based by the employer upon the nature of a defined benefit plan. Whether contributory by the employee or otherwise, such a plan requires the employer to guarantee that, regardless of investment experience, each employee member of the plan will receive upon his retirement a pension determined by a formula set out in the plan. A pension plan in itself need not be funded at all; the employer simply undertakes the obligation to see each pension paid. But where the employee is contributing, funding is occurring while the employee is actively employed, and legislation requires employers to maintain a level of employer funding in order to protect the employee against ultimate insolvency or bankruptcy of the employer. The resulting fund is held by way of a trust. Contributions are paid into an investment trust set up by the employer to provide the employee pensions, of which trust the employer may or may not be the trustee. Unlike a pension plan organized through an insurance company, the employer whose pension plan is 'trusteed' assumes the risk that the level of funding and subsequent investment return is inadequate to enable the trust fund to provide the formula ascertained pension on the retirement of the employee. If a shortfall should occur, the employer is obligated by the terms of the plan to provide the added moneys

required to enable the trust to supply the pension in question. If to the contrary, the plan is fully funded (i.e. actuarily assessed, the plan at the particular point in time is capable of providing the then accrued formula pension to every employee member upon his retirement), and the trust holds funds surplus to the actuarily assessed quantum of needed funds, whether this occurs while the plan is on-going or upon termination, the employer's argument is that he is entitled to withdraw that surplus to the extent of his own contributions because the surplus is not required to satisfy his liabilities as set out in the terms of the pension plan.

With this approach the employer does not canvas the question of who 'owns' the surplus in the trust. However, for the labour unions on behalf of the employee members the existence of funds committed to a trust is of central importance. The argument they commonly advance is two-headed; first, moneys paid into the trust by the employer as pension 'benefits' are really deferred wages, and therefore belong to the employee members of the plan for their 'benefit'; secondly, the beneficiaries of the pension plan trust are the employees, to the exclusion of the employer, and therefore the employee members are the equitable owners of the trust fund. The second argument involves the proposition that once moneys are committed to the trustee (including the situation where the employer holds the moneys himself as the trustee) the legal title to those moneys and the investment return is in the trustee, and the equitable title (interest or estate) -- that is, the right of enjoyment -- is in the beneficiaries.

In my opinion, therefore, the controversy is between an analysis that looks to the nature of the employer's obligation under a defined benefit pension plan, and an opposing analysis that is concerned with the implications of the employment of a trust or, to put it another way, is concerned with the implications of the nature of a trust.

Labour unions also argue that the true character of pension plan trust funds is revealed by the fact that they are 'tax-sheltered' as savings vehicles for plan members. That is to say, the funds are regarded not only by the unions, but by Parliament, as committed to the plan beneficiaries' benefit. They also argue that it is 'inequitable' that the high investment returns of the 1970s should resound to the benefit of the employer alone through 'surplus stripping', and that the 'laying-off' of employees (usually followed by the employee

taking out his own contributions, leaving the employer's contributions abandoned in the plan trust fund) is an employer-controlled instrument for lessening employer liability to the plan, to be followed when trade conditions improve by the employer 'contracting out', instead of hiring employees who will require benefit schemes. Unions see 'lay-offs' as a misfortune for the employee which should result in the employee's actual assistance from any existing surplus-the contrary of producing additional surplus for employer 'stripping'. As for the argument of the employer that he assumes the risk, and is therefore entitled to recover surplus, unions point to the variations between actuaries' assessments of required funding in given conditions, and assert that the most conservative actuary is hired by the employer anxious to minimize his risk. Moreover, even to the extent that the employer does assume risk, it is also the employee's loss when employer bankruptcy occurs, while the solvent employer passes on his corporate 'downturns' in the form of denial of salary increases because he must still contribute to the plan. Unions also point to the alleged inconsistency of the employer corporation, which, while it is making ex gratia payments in order to upgrade the pensions of past retirees, is at the same time seeking to take surplus in the plan for itself.

However, while there may be force in these arguments, in my opinion they can be put aside here, because they are less analyses of the present legal situation than factors which go to the issue of legislative policy. Moreover, they raise concerns which other existing reforms, such as earlier vesting, minimum interest standards for employee contributions, and the 'cushion' of two years advance current service contributions by the employer or defined percentages of required employer funding, are in large part intended to meet.

In my opinion the central issue remains whether the nature of a defined benefit plan or the nature of a trust, or yet another emphasis, determines the right of the employer or the plan members to the so-called surplus.

In order to answer this question, I believe it is first necessary to set out the basic propositions of trusts law applicable to this matter.

II THE CHARACTERISTICS OF A TRUST

A trust is a device whereby one person (T) holds, or holds and administers, certain property for the benefit of another (B). The concept originated in the Chancery (or Equity) jurisdiction, and therefore reflects the principles of that jurisdiction; it has no necessary compatibility or identifiability with the nature of obligation (contract and tort) or of property enjoyment (title and possession) at law. It is not a contract for the benefit of one of the contracting parties or of a third party, nor is it agency; it is not ownership subject to a personal servitude, nor is it a proprietary interest subject to the possessory interest of another. Looked at from the perspective of a common lawyer, it is a sui generis property relationship. It is made up of two elements: a fiduciary relationship between the trustee and the beneficiary which expresses the obligation of the trustee to act within the scope of his trust duties solely for the benefit of the beneficiary, and the vesting in the trustee of specific property which, though title is in the trustee, is the subject matter of the trustee's duties towards the beneficiary. The beneficiary has a personal right of action against the trustee for the due and proper performance of his duties by the trustee, and in this way the beneficiary secures that the trust property is solely held and administered for the beneficiary's benefit. Thus, though the beneficiary's right of action is itself a proprietary interest, indirectly the beneficiary's 'equitable' (or Equity recognised) interest can be described, perhaps loosely, as a proprietary interest in the trust assets.

The trustee has two sets of duties. The first are those duties which stem from his fiduciary role - to act with prudence, vigilance and sagacity, to discharge the policy discretions of his task personally, to avoid the conflict of his own interest and the performance of his duties on behalf of his beneficiary, and to account for any personal unauthorized profits made in the course of or by means of his trusteeship. He must also act impartially as between the beneficiaries of the trust, ensuring that he does not favour one beneficiary or class of beneficiaries over another, unless this is sanctioned by the terms of the trust instrument or the trust terms orally communicated to him. These four duties are found in the Equity case law; they have been fashioned by the courts of Equity over the four hundred years of the trust concept's existence,

and apply subject to any exclusion or variation of them by the settlor or testator in the trust settlement (in ninety-nine instances out of one hundred the trust is in practice created in the written form, and that writing is a deed. I shall assume hereafter that we are dealing with a trust in writing.)

The second set of duties is comprised of those duties which the particular trust instrument imposes upon the trustee with regard to the specific property conveyed to the trustee. E.g., he may have to maintain a house as a residence for X during her lifetime, and to sell the house on X's death, dividing the proceeds of sale in equal amounts between P and Q. Alternatively, he may have to manage a portfolio of investments for a class of beneficiaries, investing and re-investing with a view to the growth in value of the portfolio, and then to make payments of a given or discretionary amount from the fund (realising investments where necessary) on given occasions to beneficiaries qualifying for such payments according to the terms of the trust instrument.

To enable him to carry out his duties as defined by the instrument the trustee must be given the requisite powers (or discretions). For instance, he may need the power to sell, to lease, to mortgage, to invest, to meet calls on shares, to vote shares, or to manage property. Some powers, the more basic ones needed by every trustee, such as the power to hire agents, will be authorized by the provincial Trustee Act for all trustees, subject to the contrary provision of the particular trust instrument. These are the administrative powers. But the trustee may also need authorization to make income or capital payments at discretion to or on behalf of infants and minors, or incapacitated adult beneficiaries. These are the dispositive powers, which if they are not in the local Trustee Act, the trust instrument must confer upon the trustee.

In other words, putting aside the case law duties of the trustee as a fiduciary, the trust instrument is the trustee's sole instruction and authorization. It sets out his duties concerning the disposition of the trust property to or among the trust beneficiaries, and it gives him the powers he must have in order to carry out those duties. The trust instrument is the trustee's blueprint; the trustee is bound by this instrument, and, save for statute, he may look to no one, or nowhere, else for instructions or authorizations. On his application the court will construe the meaning of the instrument for him, but even the court is most reluctant to advise him as to the exercise of his discretions.

The beneficiaries, if they are all ascertained and adult, may prematurely terminate the trust by requiring him to hand over to them the trust property, but they cannot instruct him how to exercise his discretions or, so long as the trust is in being, to depart from the terms of the instrument. Nor can the settlor, the creator of the trust and the person who funds the trust, instruct the trustee. In either case the instrument must empower the beneficiaries or the settlor to instruct the trustee, and, if it does not, that is an end of the matter, provided the trustee is not acting in breach of his duties or beyond his powers.

Though the trust instrument is usually a single, if multi-page, document, like a will or a deed, it may be made up of two or several documents. In the event of a dispute it will then be for the court to determine which documents make up the instrument. However, with professionally drawn trust instruments it is usual for the central document, such as the will or the deed of trust, to incorporate other then existing documents by reference. The trust deed may attempt expressly to incorporate a document yet to be itself drawn up, but a court may very well determine in those circumstances that the trust is not created unless and until that further document is complete.

Once the trust instrument is concluded, it cannot be altered or amended in any respect unless the instrument itself authorizes an alteration or amendment procedure, or the court consents to a variation under the terms of the Variation of Trusts Act. The trust instrument is thus a complete and definitive whole, and the theory behind this doctrine is that a trust is a transfer of property, an alienation, on terms. The trustee is the title transferee who through the instrument obtains the owner's rights of disposition and management (subject to the terms of the instrument), while the right of enjoyment of the property is obtained by the beneficiary or beneficiaries. Effectively, as I have said, they obtain through the transfer by the settlor or settlors (in a contributory pension plan both employer and employee are settlors) an equitable proprietary interest. Like any other transfer of property, once the transfer has taken place, excepting a situation like fraud or mistake, the act is beyond recall. Equity may allow a settlor to reserve a <u>power</u> of revocation, but the act of transfer further to a trust is a complete alienation.

This leads to the question of what happens if all the trust purposes have been carried out, but excess property remains with the trustee. For example,

as in Re Abbott, [1900] 2 Ch. 326, a fund is set up by known members of the public to provide for the care of two specific elderly and handicapped women. On the death of the surviving woman trust funds remain, and there is nothing in the trust instrument to say what is to happen to the excess (i.e. the trust objects set out in the instrument have been attained). The answer is that the excess reverts to the settlor or equally among the settlors. This is the so-called automatic resulting trust; by operation of law the excess reverts. The objects have been met, by definition of his role the trustee cannot take the excess, and the only place the excess can go is back to those who owned it and initially transferred it to the trustee. The only thing which will defeat the reversion of an excess is that the settlor or settlors cannot be traced. In that event, if the trust is non-charitable, the excess must remain in the hands of the trustee, who will no doubt under statutory authority pay it into court in order to secure his release.

However, prior to the resulting trust arising the obvious issue is whether it was the intention of the settlor or settlors that the entire trust property should be transferred to or for the trust objects, or that only so much should be expended as the objects of the trust required in order that they be met. This is a question of construction; the instrument must be interpreted in the light of its four corners together with such extrinsic evidence as is admissible under the established evidentiary rules. Such evidence, of course, is extremely limited. For all practical purposes the instrument (i.e. the document or documents which go to make up the trust instrument) must bear its own meaning.

III TRUST FURTHER TO CONTRACT

A trust involves the alienation of specific property to a trustee who is to deal with that property on behalf of and for the beneficiary, or for the carrying out of a purpose (e.g., the erection of a memorial building), as the terms of the trust set out. But the trust will be further to gift or contract. That is to say, the reason for the alienation to the trustee on trust terms is because of the settlor's intention to create a trust, or a contract into which he has previously entered with another requiring the settlor to set up the trust.

If S intends to make a gift by way of setting up a trust for the benefit of B, it is clear that S must completely constitute that trust by his own initiative, because B has no legal means of compelling S to carry out the promise of a gift. I need not discuss here the doctrine of proprietary estoppel which may exceptionally supply such means to B.

However, if S contracts with B (i.e., for valuable consideration) that S will set up a trust for the benefit of B, B can contractually compel the performance of that act or, if for some reason he cannot obtain an order for specific performance, secure damages for breach of contract. But T, the trustee, being a stranger to the contract, cannot also as the named trustee sue S for performance; he can only sue on behalf of B and in B's name. Nor do the terms of the contract become terms of the trust, unless those contractual terms are incorporated by the trust instrument into the trust. This is because the contract and the trust are distinct legal phenomena; the contract creates in common law an in personam obligation between the parties to that contract, while a trust creates in equity, the settlor having funded or being compellable to fund the trust, an in personam relationship (having, as I have said, an in rem effect) between the trustee and the beneficiary. The trust is a transfer of the beneficial interest in property by the settlor to the beneficiary.

It follows that, if the terms of the contract are not incorporated into the trust instrument, and the terms of that instrument differ in any respect from the terms of the contract, T must adhere solely to the terms of the trust instrument. He has no authority to look for instruction or guidance to the terms of the contract. Nor is the situation different if S contracted with both B and T. T will then have his own contractual rights, e.g., to compel S to fund the trust as promised, but it is the terms of the trust that alone instruct and empower T in his administration and disposition of the trust property.

Perhaps it should also be said that, though the trust instrument is commonly described in its opening as a 'Trust Agreement', it is not a contract except possibly to the extent that the trustee may be authorized by way of the grant of a power to charge the trust fund with a fee for his services, but even then he is merely authorized to charge for services actually rendered. He independently expressly consent in the instrument to carry out the therein stated trust duties. It is an 'agreement' on the part of the trustee to act, an element which is not

essential to the creation of a trust, and a transfer of specific assets to the trustee, together with a statement as to the objects of the trust. The latter are the essential elements. The advantage of the 'agreement' is that the settlor is assured his chosen trustee will act.

Not only does the trust instrument (or 'trust agreement') define exclusively for the trustee his specific duties as to the distribution of the trust property among the described beneficiaries, and confer powers upon him both for the purposes of his administration of the trust assets and for his timing of property distribution to the beneficiaries, it can be said to state definitively what is to happen to trust assets that are surplus to the objects or purposes of the trust. If the trust instrument is silent, the surplus reverts to the original owner, the settlor, who is taken not to have disposed of the whole beneficial interest in the trust assets. If on the contrary the instrument states that there shall be no reversion of assets to the settlor, but does not state what is to be done with surplus, then the beneficial interest in the surplus becomes bona vacantia and the assets in question pass to the Crown. In either event the existence of a contract, further to which the trust was originally set up, is irrelevant, unless it is incorporated into the trust agreement.

IV SURPLUS ON THE TERMINATION OF FRIENDLY SOCIETIES

Faced with the surplus problem in societies and pension plans, neither the courts in England nor in Canada have decided along the lines already discussed. The English courts today have entirely rejected the notion prevalent in the early 1900s that, though the trust is further to contract, a resulting trust still arises in favour of the settlor or settlors, regardless of the contractual agreement which led to the payment of funds into a trust. English cases have typically concerned, not pension plans as such, but benevolent societies set up by persons with a common calling to assist financially their sick or retired members, and the dependents of members. These are essentially working men's self-help associations. The society sets up a trust to hold and invest the regular subscriptions of members, and also to make payments as agreed by the members to the intended and defined beneficiaries. Such societies are registrable as unincorporated bodies

under the Friendly Societies Act, 1896. In Re William Denby & Sons Ltd Sick and Benevolent Fund, [1971] 1 W.L.R. 973, 978, [1971] 2 All E.R. 1196, 1201, Brightman J. said ,

> 'One matter is common ground. It is accepted by all counsel that a fund of this sort is founded in contract and not in trust. That is to say, the right of a member of the fund to receive benefits is a contractual right and the member ceases to have any interest in the fund if and when he has received the totality of the benefits to which he was contractually entitled. In other words, there is no possible claim by any member founded on a resulting trust.'

Similarly in the latest authority in this line, Re Bucks Constabulary Widows and Orphans Fund Friendly Society (No. 2), [1979] 1 W.L.R. 936, [1979] 1 All E.R. 623, Walton J. pointed out that subscriptions were not paid by members in order to establish a trust, but by way of contract, so that no resulting trust came into the picture at all. The rights of the members between themselves and their rights to any surplus, he said (al-p. 952; 637) are exclusively governed and determined by the terms of the contract. He added,

> 'I say that to make it perfectly clear that I have not overlooked the fact that the assets of the society are usually vested in trustees on trust for the members. But that is quite a separate and distinct trust bearing no relation to the claims of the members inter se on the surplus funds so held in trust for their benefit.'

The inference is that the terms of the trust speak only to the carrying out of the trust objects. It is not within the scope of those terms to govern the rights of the settlor members as to assets which, on the conclusion of their contractual relationship (by the termination of the society), are not required for the carrying out of those objects.

V SURPLUS IN EMPLOYER PENSION PLANS

Most pension plans in Canada, unlike friendly societies in England, have originated without there being a preceding contract to that effect between employer and employees. A few have been created by the employer, whether also contributory by the employee or otherwise, further to a collective agreement

between the labour union and the employer company. Many more were brought into existence by the employer on his own initiative in order to make his conditions of employment more attractive, but subsequently the plan contributions by the employer and member 'benefits' have been increased following a collective agreement. Yet other plans were neither originated following such an agreement nor have they subsequently been affected by labour negotiations; either the employees attached more importance to wage increases or the plan benefits at contract renewal time were acceptable to the employees. It can always be said, nevertheless, that pension benefits are a form of compensation by the employer for employee services rendered, and in that sense all pension plans, including of course 'trusteed' pension plans, are further to the contract of employment. All the same, a form of distinction can still be made between the friendly society cases in England and the pension plan cases that, while the society trusts are always further to contract, the terms of the pension plan may not constitute a contract, though the plan leads to the setting up of a trust.

With this in mind, it is interesting to observe that in Re Courage Group's Pension Schemes, [1987] 1 W.L.R. 495, 514, 515, Millett J. was of the opinion that, whereas if surplus is returnable under the terms of the plan and is not to be used to increase benefits, it prima facie is returnable to the settlor (i.e., employer and employee in a contributory scheme), that is not so where the nature and terms of the plan are along defined benefit lines. The employee in the Courage plan was obligated to contribute fixed and regular amounts, and the employer guaranteed a formula pension. Any surplus was therefore rightfully the employer's to the extent of his 'topping up' contributions, and only thereafter the right of the employees.

Turning to the Canadian scene, this was precisely the conclusion to which the Alberta Labour Relations Board came in United Food and Commercial Workers International Union Local 280-P v. Gainers Inc., 28 October, 1986.

> 'In the absence of binding contractual or trust deed terms to the contrary', the fund was 'in the nature of a guarantee fund.... It is a fund required to be maintained to guarantee that employees will get their fixed benefits upon retirement. Those benefits are the employees' entitlement; the fund is the guarantee of the benefit, not the benefit itself. If the guarantee ultimately proves too large any surplus under the terms of the plan before us belongs to the employer' (pp 91, 92). The Board continued, 'The Union argues that pension benefits are deferred wages. This is correct, but it

> is the pension benefits, not the fund that guarantees those benefits, that are the deferred wages. The Union has chosen to negotiate a defined benefit plan, and accept the deferred wages as fixed benefits on retirement, rather than the uncertain benefits it might otherwise have negotiated through a defined contribution plan' (p.92).

This part of the Board's judgment was not questioned when an appeal was brought before the Alberta courts, and the Board's decision was reversed on other grounds.

The point with the Millett J. decision, and the decision of the Alberta Labour Relations Board, is that they constitute an analysis which looks to the nature of the employer's obligation under a defined benefit plan. In my opinion each analysis stems from the English approach, namely, that when parties come to a contractual or otherwise enforceable agreement, setting up a trust to serve as the medium for putting the agreement into effect, it is the contract that should determine the rights of the contracting parties inter se in relation to any trust surplus, once the terms of the trust have been fully carried out. The terms of the trust would here mean the investing and payment over of the fund further to the benefits agreed upon and set out in the agreement.

VI THE APPROACH OF COURTS, OTHER THAN IN ONTARIO, TO SURPLUS

Early decisions of the courts other than in Ontario, applying the case law of trusts, tended to favour the right of the employer to have the surplus on plan termination. Little was discussed of the law of trusts in Jones v. Shipping Federation of B.C. [1963], 37 D.L.R. (2d) 273, when Brown J. held that a clause in the plan which permitted the surplus to go to the Federation in the event of an 'actuarial error' was an effective provision. But in Re Canada Trust Co v. Cantol, [1979] 6 W.W.R. 656, another B.C. decision, Gould J. held that there was a resulting trust to the employer of the surplus on termination of a non-contributory plan. He invoked the classic trust law principles already discussed in this paper. The same approach as in the Cantol case was adopted by Nitikman J. in Martin & Robertson Ltd v. The Pension Commission of Manitoba, reported only in brief at [1982] A.C.W.S. (2d) 249. This was a Manitoba decision handed down on 21 February, 1980. Nitikman J., like Gould J., regarded this as a case

of 'Exhaustion or failure of express trust objects', and, since the Martin & Robertson plan required that it should be wound up 'in an equitable manner', and he was assured it was actuarily possible to divide the surplus between the employer and the employees in accordance with their respective contributions to the fund, he made an order to this effect.

VII THE CHANGING POLICIES OF REVENUE CANADA

Before proceeding to the Ontario cases, however, reference should be made to the difficulties for pension plan drafting personnel which have been created by the changing policies of Revenue Canada. Between 1947 and 1959 Revenue Canada required a pension plan trust to provide that any surplus would be applied by an equitable formula for the increased benefit of those employees then covered under the plan. Nothing was to revert to the employer. The result of this provision was the executive pension plan which was funded at a very conservative actuarial interest rate with the consequence that the inevitable surplus had to be distributed to the executive members, who thus acquired a pension in excess of the Government's declared maximum pension. In the early 1970s Revenue Canada required that all surplus had to revert to the employer, when it would lose its tax deferred status. The use of the trust, a less familiar concept for many Canadian professionals, as the pension plan vehicle is already a response to Income Tax Act rules, and to add to the difficulty plan precedents which were drawn in the 1950s so as to exclude any reversion of surplus had thereafter to be amended, sometimes more than once, in order to produce the opposite effect. The process has therefore been the introduction of often ill-understood amendments to an often unfamiliar mode of pension plan; no party to the trust arrangement could really be said to 'intend' the initial form or the amendment. The whole exercise was undertaken in order to secure compliance with Revenue Canada's rules for the time being. As the Alberta Labour Relations Board noted in the Gainers case,

> 'One of the difficulties of interpreting the language of pension plan documents before us, we suspect, is that these plans were modified from, or based on precedents from, plans drawn under the old income tax rules. They then had the new rules requiring employer

> surplus reversion grafted onto them, yielding a peculiar mix of 'equitable sharing' and 'employer reversion' terminology' (at pp.75, 76).

Unfortunately, the Ontario courts have never to my knowledge alluded to this influence upon pension plans in the province, the plan drafting responding to a third party requirement having little or no connection with the employer's or the employee's intent.

VIII THE APPROACH OF ONTARIO COURTS TO SURPLUS

In two earlier Ontario cases the reversion of surplus was allowed. In Campbell v. Ferrco Engineering Ltd [1984], 4 C.C.L.I. 268, the plan was to the effect that the employer would employ the trust fund 'exclusively for the provision of benefits to members in an equitable manner and as fully as possible in accordance with the provisions of the plan'. The plan originally contained no provision for the reversion of surplus to the employer, but further to its amending power the employer amended the plan, in response to a Revenue Canada information circular concerning maximum allowable pensions. The amendment allowed surplus to revert to the employer. Anderson J. construed the employees' interest in the fund as being the 'benefits' defined by the plan, and he decided that, as there was no question of the company being wound up at the time of its adoption, the amendment was a bona fide authorized change to the plan, and effective. Under the terms of the plan (no reference was made to the trust document) the court had therefore found 'the employees had no interest in any surplus' (p. 275).

In Re Knechtel Furniture Ltd [1985], 56 C.B.R. (N.S.) 258, however, the plan expressly stated that reversion of surplus to the employer should take place, except that, if inter alia the employer company became bankrupt, excess funds in the plan should be used to provide additional benefits to the employee members. Saunders J. concluded that the employee members and the now bankrupt employer were entitled to share the surplus in proportion to their respective contributions, but that the employer's share could not pass to the employees under the divesting provisions of the plan because the provision improperly defeated the employer's creditors. In any event, he said,

'the employee participants have received their benefits in full under the Plan'.

Both cases alluded to the plan only, ignoring the trust deed in which the plan must have been incorporated, and both cases concerned a plan where, in my opinion, the language in question could have been construed to give surplus rights to the employees as of the date of the plan's commencement. However, in each case the court found that the employees had received their guaranteed rights under the terms of the plan; this it seems to me was crucial. Both courts were essentially adopting the analysis that looks to the nature of the employer's obligation under a defined benefit plan.

In King Seagrave Ltd v. Canada Permanent Trust Co [1985], 57 O.R. (2d) 667, Pennell J. did refer to the trust which incorporated the plan, and the corporate employer in the absence in the plan of provision concerning surplus argued a resulting trust (the plan was also non-contributory by the employee members). But, since Regulation 14 (4) under the Pension Benefits Act, R.S.O. 1980, c.373, required no part of a surplus to revert to the employer unless the plan had been amended to give the employer the surplus, and the plan had not been amended, the trial judge regarded this as conclusive. The employee members were entitled to the surplus. He therefore did not have to choose between the analysis based on the nature of the employer's obligation and the employees' analysis based on the scope of the term, 'Trust Fund', in the Trust Agreement and the Agreement words , 'no capital or income of the Trust Fund may in any event revert to the Company'.

The decision of the Court of Appeal in Reevie v. Montreal Trust Co [1986], 53 O.R. (2d) 595, marked in my opinion the decisive move of the Ontario courts to the analysis which emphasizes the nature of a trust, that is, the significance which lies in the employment of a trust in connection with a pension plan. King Seagrave Ltd had underlined that three elements are involved in pension arrangements - the trust, the plan, and the Pension Benefits Act (Ont.). In my opinion the better view is that the plan represents the contract with the employee to provide defined pension benefits as compensation for services rendered, and the trust is the vehicle for the resultant contributions of employer and, where the plan requires employee contributions, of the employees. It is true that the mode of document organization is that the trust incorporates the

plan if the documentation has been carefully drafted, but nothing in my opinion need turn on this. In Reevie the plan provided that all employer contributions should be 'irrevocable' and be for the benefit of the beneficiaries of the plan only, but the company had the right under the plan 'to change, modify, suspend or discontinue the Plan'. The trust agreement, however, also stated that, prior to the satisfaction of all liabilities with respect to the beneficiaries of the plan, the trust fund was to be used exclusively for the beneficiaries. The company amended the plan, further to its power so to do, and awarded surplus, following payment of all benefits, to itself. The Court of Appeal rejected the validity of this amendment on the grounds that it constituted a partial revocation of the trust - it took away the beneficial interest of the trust beneficiaries in the surplus on the termination of the plan - and that no such power of revocation had been reserved to the company under the terms of the trust. Zuber J.A. for the Court, said (al-p. 600),

> 'At the centre of this dispute lies the simple fact that the funds in dispute are trust funds'.

This analysis of the situation has governed Ontario surplus litigation to this day. Re Reevie was followed as to its reasoning and result when the appeal in King Seagrave Ltd was heard ([1986] Employment Benefit and Pension Guide Reports 8017), and Ewaschuk J. followed it precisely in Re Heilig and Dominion Securities Pitfield Ltd [1986], 55 O.R. (2d) 783. Though the Alberta Labour Relations Board in Gainers Inc was prepared to say that the ownership of surplus was determined by the nature of a defined benefit plan and the employer's obligation, the Ontario courts have not dealt with this issue. They have been content to say that the funds at issue are trust funds, and either expressly or by implication that it is the terms of the trust which must prevail and determine whether the employer is entitled, given the consent of the Pension Commission under the Pension Benefits Act of the Province, to take out the surplus.

Again in Collins v. Pension Commission of Ontario [1986], 56 O.R. (2d) 274, Reid J. for the Divisional Court followed Re Reevie to the letter. The employer company, Dominion Stores Ltd., having the plan power to amend the plan, had given itself by an amendment the power to take surplus in the event that the plan was terminated. However, Dominion had then sought to take out

surplus while the plan was on-going, and the case concerned both the inappropriateness of this action and the manner in which the Pension Commission had approved of such a withdrawal. Reid J. commented (al-p. 285):

> 'The contributions Dominion receives from employees are trust funds in its hands -- and contributions required from Dominion are as well';

he cited ss.23(1) and 23(4) of the Pension Benefits Act, R.S.O. 1980, c.373, as amended, as authority for this. Indeed, he said, citing Re Reevie, the very validity of the amendment was in question, because it sought in part to revoke the trust. Prior to the amendment the plan had stated that on discontinuance of the plan all employer contributions would remain in the plan for the benefit of the members.

The fund manager, said Reid J. (al-p. 285), not only held the funds 'in trust' for plan members 'and Dominion', but prior to the plan amendment the employee members had a beneficial interest in the surplus.

In this instance the comments concerning the validity of the amendment were obiter dicta, because the litigation did not concern this issue, but the approach, the analysis, of Re Reevie was closely followed.

The final case to date know to me on this subject is Re Canadian Union of Public Employees, (1987), 59 O.R. (2d) 31, where the Divisional Court was faced with the question whether surplus in an on-going plan might be applied so as to reduce the current service contribution requirements otherwise imposed by the Power Corporation Act, R.S.O. 1980, c.384 (the 'plan'), upon Ontario Hydro as the employer. Each employee paid 5% of his or her base earnings into the fund as his or her contribution.

It is a curious decision. McKinlay J. agreed that Re Reevie decides that all moneys in a pension plan fund are trust moneys, but she saw the Hydro problem not as a question of 'the nature or status of the monies once they are paid into the fund, but rather the amount of money the employer is required to pay in'. In other words, Hydro was not seeking to take the surplus out; it was seeking merely to have surplus in the trust fund moved, as an accounting procedure, to the credit of Hydro's future contribution liabilities to the fund. McKinlay J. considered that nothing in the Act affected generally accepted actuarial principles in assessing that liability, and such an approach gave Hydro

the advantage of the surplus. Galligan J. agreed that it was simply a matter of what are generally accepted actuarial principles, the Act being silent on how surplus is to be treated. Reid J. dissented because to him there was no difference between the employer taking the surplus out and having the surplus shown as being for the employer's credit. However, he said nothing about the fact that the moneys held in the plan were trust moneys, and he did not cite Re Reevie or any other authority in favour of his conclusion.

In my opinion it is not persuasive to say that McKinlay J.'s majority judgment in Hydro Ontario marks a move back to the analysis which looks at the surplus issue in terms of the employer's obligation under a defined benefit plan. As McKinlay J. says, the plan provisions and the facts of Re Reevie are different from those of Ontario Hydro. However, it would seem the crucial factor is that she was unwilling to apply Re Reevie to the next step beyond Reevie which is the characterization of trust funds that are to remain in the trust. The usual actuarial principles, accepted everywhere by actuaries of repute, were just too firmly accepted to be set aside as incorrect or irrelevant.

As to the ownership of surplus, as between employer and employee plan members, the dominant significance of actuarial principles made that issue irrelevant, so far as McKinlay and Galligan JJ. were concerned. Reid J. dissenting thought ownership was crucial, and that the Act nowhere gave ownership to Hydro. But he does not rule on the ownership issue either; he says merely that the Pension Commission route should have been taken - a process which does not decide who owns surplus, as the decisions already discussed have shown.

IX CONCLUSION

To my mind the conclusion is inescapable that, so far as surplus in a plan determination situation is concerned, Re Reevie represents the approach of the Ontario courts today. The analysis preferred in the Province is that the fate of surplus is determined by the trust deed and trust law principles. The approach of the English courts in cases like Re Bucks Constabulary Widows and Orphans Fund Friendly Society (No. 2) supra, has not been canvassed, nor therefore even the relevance of those cases discussed. No court in the Province has

couched its opinion in such a way as, in my opinion, to give an answer to the question, who owns the surplus. The trust analysis certainly favours the labour unions' position, but that is as far as one can go.

Whether surplus can be called upon by the employer to meet his existing and future obligations to the on-going plan is a question where, with two precedents only to this date, the Ontario courts seem less sure of the appropriate approach. Collins, which was on another point, gives the impression of favouring decidedly the Reevie trust law approach. Ontario Hydro by a majority held back from following through with Re Reevie because of widely accepted actuarial practice.

Moreover, in all the cases the language of the trust deed and of the plan not only differed, but it must be a matter of opinion what weight was attached to the particular language in the context of each judge's decision.

The Pensions Benefit Act, R.S.O. 1980, has not been of real value to the courts because, as I see it, the Act just does not address the issue of surplus. Arguments can be made by dint of the language of a particular section or subsection of the Act that the legislation favours the nature-of-a-defined-benefit-plan analysis, or the nature-of-a-trust analysis, according to the slant counsel wishes to put on language and context. Consequent to the Act's effective silence on the matter, the courts in Ontario have concentrated in each case on the documents appearing to make-up the plan and the trust, and, if the plan and trust are also silent, or contradict one another, the courts have chosen to fall back on the doctrinal or conceptual trust law. This is the way in which the present position seems to have evolved.

It seems to me that either of the two analyses I have discussed has a legitimate basis. A trust consequent to a contract is distinct from the contract, and only when the contract (the plan) is introduced into the trust document can the trustee be bound by its terms. Where there is a conflict between the incorporated plan (e.g., as Schedule A) and the trust objects as set out, it is a persuasive interpretation that the described trust objects, as the heart of the trust, should prevail.

In my opinion, however, the analysis which looks to the nature of a defined benefit plan is the better one. I believe the English cases, highlighted in Re Bucks, have the correct approach, and I agree with the very clear exposition

of this approach in the Alberta case of Gainers Ltd. Moreover, it throws the debate between employer and employee back to where it belongs, the bargaining table between the two sides. The inadequate trust deed can then be amended by agreement, further to the power of amendment in the instrument. If there is no power of amendment, I do not see why the parties should not apply to the courts to vary the instrument or terminate it (see, e.g., Re Sandwell & Co. Ltd [1985], 17 D.L.R. (4th) 337 (B.C.)). A new trust instrument can then be set up, following termination. Particularly do I favour this approach in the light of Revenue Canada's varied treatment of pension plans for tax purposes between 1947 and 1971, when precedents were being employed and plans amended merely to accommodate Ottawa's tax policy. This is hardly a factor which courts can consider, called on to interpret the plan documents, but it is a reason for my preferring that the Ontario courts had adopted the analysis based on the nature of a defined benefit plan.

As to the uses to which pension plan surplus can be put under the present case law and statute law of Ontario, whether that surplus occurs in an on-going plan or on termination of the plan, the answer would seem to be this. If the trust instrument, whether or not it incorporates the plan, gives excess funds to the employee members or says that there shall be no reversion of the employer's contributions to the employee, the surplus cannot on termination or while the plan is to continue be taken out of the plan by the employer, even if the employer has a power of amendment under the plan, and amends the plan to give himself that surplus. If the plan and the trust are totally silent on what is to happen to surplus, but the employer has consistently held out to his employees that the trust funds are for the sole benefit of the employees, the court is more likely to find, I believe, that the employer has committed himself to an interpretation of the trust documentation.

In both instances, should a termination be the situation, some form of increased employee benefits, presumably for those employees who are active (i.e., still employed) members of the plan, will now have to be worked out. Distribution of surplus while the plan remains in being (a circumstance I have not met) would surely raise under existing law serious difficulties as to which employees are to benefit. Re Sandwell & Co., supra, again suggests one solution,

but so far as I am aware the Ontario courts have never been invited to consider an application under the provincial Variation of Trusts Act.

If the plan is on-going, and the employer is seeking to have surplus credited to his unpaid current service contribution liability, or to his liability to fund an existing unfunded situation, but he is not seeking to take the surplus directly out of the plan, the current case law suggests this crediting can be done, because the overwhelming evidence is that it is accepted actuarial practice to have regard to historic as well as current experience factors. In the light of Reid J.'s very persuasive dissent in the Hydro Ontario case, however, I am not at all sure the majority opinion will prevail in the Court of Appeal, should it be challenged there on this or a subsequent occasion, given the analysis which that Court has preferred in termination circumstances.

Since the Ontario courts appear now for the most part to have accepted the Reevie approach (the nature of a trust analysis) as the correct approach, it is my opinion that, unless there is new legislation on the subject, they will increasingly be led into very close examination of plan and trust documents as disputed instances come before them. In other words, interpretation of language used will be crucial while it remains the case that so many plans were not drawn or amended at a time when it was realised what importance would attach to the language or the precise details of plan or trust clauses.

To my mind, therefore, a new legislative policy dealing with surplus, and the uses to which it is to be put, is greatly needed. This will also allow opportunity for consideration to be given to the possible outcome of legislation which indexes pension out of surplus or otherwise allocates surplus to plan members. What is now to be the fate of existing defined benefit plans? Will employers of small and medium size work forces terminate their plans, leaving employees to private R.R.S.P. arrangements? Will employers who wish to attract labour terminate and introduce defined contribution plans with an appropriately attractive employer percentage-of-base-wage contribution? Will employers who choose to retain defined benefit plans seek to make only the minimum contribution possible? If Hydro Ontario is wrong, are employers required to maintain the level of their current service contributions when the on-going plan is already, perhaps substantially, in surplus?

However, I am not asked to deal with these issues, or the counter measures that may be legislatively necessary. I introduce these questions merely to show the direction of my own thought if the directions of the existing case law were simply to be left in place.

Legal Position in Ontario on Withdrawals of Surpluses

Ralph E. Scane

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Legal Position in Ontario on Withdrawals of Surpluses

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I INTRODUCTION

Although the assets of a plan, arising from employer and employee contributions, and the investment of these, are held by a trustee, and beneficial interests arise as a result, in my opinion the law of trusts has little application to the solution of the problem of entitlement to the surplus,as these surplus problems arise in practice. I acknowledge that this opinion is inconsistent with the approach taken in Re Canada Trust Co. & Cantol Ltd., 103 D.L.R. (3d) 109 (B.C.S.C.) and with some of the language of the Ontario Court of Appeal in Re Reevie et al. and Montreal Trust Co. of Canada (1986), 53 O.R. (2d) 595, leave to appeal to S.C.C. refused, 56 O.R. (2d) 192, which lays heavy emphasis on the fact that the interests created under the pension plan are interests arising under a trust.

In my view, the problem is best viewed as a problem of contract. Essentially, the question of who might be entitled to any surplus, and whether the surplus is withdrawable, is a question of interpretation of the contract.

In the plans which I have seen, there is usually a document setting out the terms of the plan, as between employer and employees, and another document establishing a trust, whereby the assets of the plan will be held by a trustee. The terms of the plan, as between employer and employees, are in turn part of the overall contract of employment, and an employee, by taking employment, thereby becomes entitled to such rights and privileges as the plan may confer upon employees in his or her position. The beneficial interests in the assets of the plan, created by the trust itself, are the interests which the contracting parties have agreed, by the plan document, will be their respective interests. Essentially, the trustee holds the funds for the employees, past and future

employees, and the employer, as their respective interests, if any, might appear under the terms of the plan. In what are probably rare situations where there is a contradiction between the terms of the plan itself, and the terms of the trust settlement of the assets of the plan, as to the interests of the parties in those settled assets, then the interests as created under the trust settlement will prevail. See Re Heilig et al. and Dominion Securities Pitfield Ltd. et al (1986), 55 O.R.(2d)783, 29 D.L.R.(4th)762. (Ont. H.C.J.)

An individual problem usually contains the further complication that the terms of the plan are, or purport to be, amendable. In the instances with which I am familiar, the dispute between employer and employees has centered around these amendment provisions. The typical problem is that the terms of the plan, as established, appear to have allocated all surplus amounts in the plan, on any termination of the plan, to employees, or at least have deprived the employer of any entitlement thereto. They have also been silent as to any right on the part of the employer to withdraw surplus from an ongoing plan. The question then arises whether the amending power can be used to change this contractual entitlement - and thus, change the beneficial interests in the underlying trust. If there is no amending power which can be, and is, validly employed to change the entitlement at termination to the employer, or to add a power in the employer to withdraw surplus prior to termination, then an attempt by an employer to withdraw surplus from an ongoing plan which allocates surplus on termination exclusively to employees must be improper. Any such withdrawal would derogate from the beneficial interests of the contingent persons who will be entitled on termination. The derogation occurs because withdrawal defeats the present right to have the surplus applied for the plan members' benefit, should termination occur while that surplus exists.

For convenience, in this opinion, I shall use the word 'employees' to include all persons, other than the employer, having vested or contingent rights to receive benefits of some nature under the plan - present and future employees, retired employees, and, if so provided, their beneficiaries.

If the employees are to have any rights to surplus in the plan, that right must arise either by statute, or by implication of law, or by the terms of the plan.

II WHETHER STATUTE GIVES EMPLOYEES ANY PROPERTY IN SURPLUS

As far as the situation in Ontario is concerned, it is my opinion that, except in one situation, statute law does not allocate rights to actuarial surplus to employees, whether one refers to the Pension Benefits Act, R.S.O. 1980, c.373, as amended, which is currently in force ('the present Act') or the Pension Benefits Act, 1987 (S.O. 1987, c.35), which will replace it on proclamation ('the new Act').

Under the present Act, withdrawal of surplus by the employer on plan termination is permitted, subject to meeting the requirements of s. 14(6) of the Regulation.[R.R.O.1980, Reg.746, as amended] For situations where s. 14(6) is inapplicable - and this appears to include withdrawals from an ongoing plan- s. 21(2) of the Regulation contemplates the possibility of withdrawal with the Commission's permission. I do not believe that s. 2(15) of the Regulation can be read to forbid withdrawal of surplus (by restricting application of any surplus so withdrawn to the objects set forth in the subsection). It is my opinion that subsection 2(15) is enabling, not mandatory. It is not drawn in exclusive terms, and I believe it can be given its full effect by reading it as preventing an argument that any present surplus or 'gain' must be ignored in assessing employer liability to make payments under s. 2(3) of the Regulation, or to make annual payments for current service under a plan, sufficient to cover accruing liability for a future year. The present Act requires that the funding of plans take place in a manner permitted by the Act, and that funding be adequate to provide for payment of all benefits agreed to be paid under a plan [s. 21(1)], but in my opinion, the Act does not carry the matter any further than this. It leaves the beneficial entitlement to surpluses unresolved. Employees have the right to insist that surpluses be withdrawn - if they can be withdrawn at all - only with Commission approval, but this right does not allocate the beneficial rights in any surplus to the employees.

The one situation where the statute law does effect an allocation of proprietary rights occurs where the terms of the plan do not allocate surplus to the employer on the termination of the plan. Under the present Act, s.14(6)(d) of the Regulation forbids any portion of the assets from 'reverting' to the employer unless the plan specifically so provides. A similar provision is found

in s.80(4)(b) of the new Act. The new Act reinforces s.80(4)(b) with s.80(5), which will provide a positive allocation of the proprietary right in the surplus, on termination, to plan members, in the absence of a allocation in favour of the employer in the plan documentation. There is no explicit allocation corresponding to that found in s.80(5) of the new Act, in the present Regulation, but the effect of s.14(6) must be the same. If the employer is forever barred from any possession and enjoyment of any surplus on termination, because all of the conditions of s.14(6) of the Regulation have not been complied with, then the employer cannot have any proprietary interest in that surplus. In theory, the surplus could then belong to either plan members, or to the Crown, as bona vacantia. The overall scheme of the Regulation suggests to me the underlying assumption that the fund belonged to the members if the employer was excluded because of failure to comply with s.14(6)(d), and Pennell J. so held in Re King Seagrave Ltd. and Canada Permanent Trust Co. et al (1985), 51 O.R. (2d)667, 20 D.L.R. (4th) 623, although there is no indication in the report that a bona vacantia argument was advanced.

The new Act does nothing to change this basic position. Section 10(1)11 requires the documentation to address the treatment of surplus during continuation and at termination, but it does not require any particular treatment. In ss.79 and 80, the two sections specifically addressing the question of surplus, the question of ownership of the surplus is not dealt with. The new Act contemplates withdrawal by the employer subject to meeting the conditions established in ss.79 - 80, and thus must be assuming that, in some circumstances, the surplus may be the property of the employer so as to permit its withdrawal. However, in my opinion, any such property right is not being created by the Act. The new Act is merely recognizing that such a right may exist independently of the Statute, and, in the case of ongoing plans, placing what is in effect a new statutory restraint on alienation on that proprietary right, if it exists. That is, even if the property right does rest in the employer, so long as the plan is ongoing, the employer may only alienate from the plan that portion of the surplus which exceeds the amounts specified in s.80(1)(c), 80(1)(d), and 80(1)(e), and, until a date is prescribed under s.80(10), may not remove any surplus at all. On the other hand, beyond imposing this ‘restraint on alienation’, the new Act does not allocate the proprietary ownership in the

portions of the surplus which must be retained in ongoing plans to the employees, or to anyone else, except in the one circumstance where ss.80(4)(b) and 80(5) come into play, as discussed above.

III WHETHER EMPLOYEES OBTAIN ANY PROPERTY IN SURPLUS BY IMPLICATION OF LAW

I can see two possible sources for a property right in surplus arising in employees by implication of law - one under contract law, and one under trust law. I will reserve comment on the former to a later point in this opinion, and turn to the possibility of the employees receiving an interest in the surplus by way of trust law - specifically, by reason of a resulting trust.

In non-contributory plans, i.e., where all contributions into the plan are made by the employer, the doctrine of resulting trust has been employed to establish the employer's entitlement to surplus on plan termination, where the documentation did not expressly create such right. For example, Gould J. applied the doctrine to justify awarding surplus on termination to an employer in Re Canada Trust Co. and Cantol Ltd. (1979), 103 D.L.R. (3d) 109 (B.C.S.C.). In the cases where there truly is no express allocation of the beneficial interest in plan funds which are surplus to amounts required to satisfy all expressed beneficial entitlements, then the doctrine of resulting trust is properly applied to allocate that surplus to the settlor of the trust. In a non-contributory plan, that settlor is the employer.

The doctrine of resulting trust has also been adopted to allocate to employees some percentage of a surplus on termination, in the case of contributory plans. The doctrine was so employed by Nitikman J. in Martin and Robertson Administration Ltd. v. Pension Commission of Manitoba, noted, (1980), 2 A.C.W.S. (2d) 249 (Man. Q.B.) to divide a surplus between employer and employees according to the payments made. As indicated previously, if employees have an interest in any surplus which may exist should the plan terminate, then, in my opinion, they have sufficient interest in any surplus of an ongoing plan to prevent an employer from derogating from that contingent future interest unless the employer has been given the power to do so. Of course, if the plan's terms expressly allocate the beneficial interest in the surplus, whether

to employees or employer, there is no room for a resulting trust. In my opinion, this truism was overlooked in Re Canada Trust Co. and Cantol Ltd., supra.

In my opinion, it is not proper to consider employees who make contributions into a 'defined benefit' plan as 'settlors' of a trust, or as suppliers of part of the purchase price of an asset, (the fund investments) the title to which has been taken in another's name, in order to invoke the doctrine of resulting trust in their favour. In my opinion, Re Martin and Robertson Administration Ltd. v. Pension Commission of Manitoba, (supra) was wrongly decided. Also, in Re Reevie and Montreal Trust Co. of Canada, (supra) Zuber J.A., delivering the judgment of the Ontario Court of Appeal, referred to the employer and the employees as being 'the settlors' of the trust fund of the pension plan in that case, which was a contributory plan. [p.600, O.R. (2d)] However, although the Court of Appeal placed great weight on the fact that the funds were trust funds, neither in this passage in particular nor in the judgment in general was the Court directing itself to the possible application of the doctrine of resulting trust. In my opinion, the mere fact that the Court, in a case which did not require a full (or any) examination of the consequences of the designation, described contributing employees as 'settlors' does not constitute an authority that contributing employees obtain a right in surplus by virtue of the doctrine of resulting trust.

Employees should be regarded as having 'purchased' a contractual right to receive the defined benefit on retirement or otherwise, as provided in the plan. They also have the right to have their benefits secured by the underlying trust of the assets, but, beyond the limited right created by statute, as discussed in the previous section, they have no proprietary right in the funds held by the trustee beyond that required to secure their contractual right. This approach is consistent with the view of the law taken in a number of English cases dealing with associations of persons who have banded together in some unincorporated association to provide some type of financial benefit for themselves and their families.

In these cases, the typical situation is that the terms of association provide for subscriptions to be paid by members, to be held by a managing committee of trustees, in order to provide annuities to surviving spouses, or sick benefits, or some similar type of financial support. The legal problems

with which we are concerned for our purposes arose when these associations terminated, or for some reason became inoperative, with unexpended surplus beyond that needed to provide any agreed benefits.

The modern, and in my opinion, the better English view in these cases is that the answer to the question of ownership of the surplus is found in contract law, not trust law, so far as the rights of member subscribers are in issue. Member subscribers are treated as contracting among themselves that, in consideration of their subscriptions, they will receive a defined benefit, if, as and when stipulated eligibility criteria are met. This defined benefit, as established by the contract, exhausts their rights derived from their status as contributors to a common fund. There is therefore no room for a claim to surplus funds based upon a theory of resulting trust.

The leading English case of this line of cases is <u>Cunnack</u> v. <u>Edwards</u>, [1896] 2 Ch. 679 (C.A.). The case arose because a trustee held unexpended funds of an unincorporated association, all of whose members had died. The association had been formed to raise a common fund by subscriptions of the members, in order to provide annuities for widows of deceased members. The rules of the association were silent as to the ultimate disposition of funds not required for the purpose. The fund was claimed by the estate of the last surviving member. At trial, after holding that the fund was not a charity, and cy-pres could not be applied to deal with the surplus, Chitty J. held that there was a resulting trust of the surplus for the estates of the members, proportionate to their contributions. On this issue, the Court of Appeal reversed the trial judge.

Lord Halsbury L.C. said, 'The entire beneficial interest has been exhausted in respect of each contributor. It was ... a perfectly businesslike arrangement: each man contributed a certain sum of money to a common fund upon the bargain that his widow was to receive, upon terms definitely settled, a certain annuity proportionate to the time during which the husband has contributed to the common fund. There never was and never could be any interest remaining in the contributor other than the right that his wife, if she survived him, should become entitled to a widow's portion thus provided. This was the final and exhaustive destination of all sums contributed to the common fund. Under these circumstances I am at a loss to see what room there is for the contention that there is any resulting trust.' [p. 681]

Similarly, A.L. Smith L.J. said, 'as the member paid his money to the society, so he divested himself of all interest in this money for ever, with this reservation, that if the member left a widow, she was to be provided for during her widowhood. Except as to this, he abandoned and gave up the money for ever.' [p. 683]

The practical result of this holding, in the circumstances applying in Cunnack was that, as the estates of the deceased former members had no interest in the unexpended fund, it was ownerless, and went to the Crown as bona vacantia.

Even after the decision in Cunnack, the doctrine of resulting trust was applied to resolve some 'surplus' situations by courts in Great Britain. See Re Printers and Transferers Amalgamated Trades Protection Society, [1899] 2 Ch. 184, and Re Lead Company's Workmen's Fund Society, [1904] 2 Ch. 196. (The latter case involved a deficiency of assets, rather than a surplus.) However, the approach taken in Cunnack has been applied in later English and Irish cases, including the most current. See Braithwaite v. A.G., [1909] 1 Ch. 510, Tierney v. Tough, [1914] 1 I.R. 142 (Ch. D. Ireland), In Re West Sussex Constabulary's Widows, Children and Benevolent (1930) Fund Trusts, [1971] Ch. 1, In Re Sick and Funeral Society of St. John's Sunday School, Golcar, [1973] Ch. 51, [1972] 2 All E.R. 439, and Re Bucks Constabulary Widows and Orphans Fund Friendly Society (No. 2), [1979] 1 W.L.R. 936, [1979] 1 All E.R. 623.

Because they are 'members association' cases, the situations in the above cases are, of course, not an exact analogy to the situation of a 'defined benefit' pension plan established by an employer for its employees, as we typically find it in Ontario. The 'members association' cases usually must go on to deal with other issues with which we are not concerned, e.g., whether funds derived other than from members, such as donations from outsiders, or receipts from benefit concerts and the like, are accretions to the funds derived from members contributions, and are divided similarly, or on some other basis.

One aspect of the 'members' association' cases which in my opinion is not applicable to the issue of entitlement to surplus of an employer's pension plan, is the provision made in those cases for division of surplus. In the 'members' association' cases, absent a contractual provision, such as an association rule or by-law, to the contrary, the assets of an association or 'club' are

divided, on dissolution, among the then existing members, provided that there is a sufficient group remaining to constitute a 'membership'.

This result flows by implication where the funds in question belong to a group of members, and where the rights of members, past, present, and future, are governed only by the contractual arrangements made among the members themselves. The pension plans which are creating the 'surplus' problem with which the Task Force is here concerned are not plans arising out of contracts between the employees inter se. In my opinion, our typical plans involve a contract between an employer and its employees, created by a process of adhesion to the terms of the contract by the employee pursuant to his or her overall contract of employment. The relevant terms of the plan therefore are basically the same, for present purposes, as those considered by the court in Cunnack (supra). That is, in return for agreed contributions (assuming that the plan is contributory), the employee (rather than the 'member') is entitled to receive from the employer (rather than the 'association') stipulated benefits, when and if the employee satisfies the conditions precedent for receiving them. Beyond this, in Lord Halsbury's words, 'there never was and never could be any interest remaining in the contributor.'

As suggested above, our typical plan does give to the employee some entitlement beyond a mere contractual chose in action. The employee is entitled to have funds set aside in some manner to secure payment of his or her contractual right to the benefit. However, in my opinion, that entitlement does not of itself confer any proprietary interest in funds held in the plan which are surplus to the security requirements.

Of the cases which I cited above as supporting the ratio of Cunnack with respect to absence of a resulting trust, one case, Tierney v Tough, supra, requires more detailed commentary at this point, because it does involve contributions to a fund from both employer and employees, and because its result, which excluded the employer from participating in sharing of any surplus on dissolution, and distributed that surplus among members (employees) existing at the time the society ceased to operate. On its face, this result appears to go contrary to the opinion I have expressed here.

The association in question was created in 1878 by the employer company, at the request of employees, to provide certain death benefits and sick benefits.

All of certain classes of employees had to belong, and pay a weekly subscription, by way of deduction from wages. The company also contributed a stipulated weekly sum for each employee. The 'society' so created was unincorporated. Its affairs were in the hands of a management committee of six, three appointed by the company and three elected by the members, i.e., the employees. The committee had power to amend the society's rules, which determined members' benefits.

In 1911, with the coming into force of National Health Insurance, a special meeting decided that, after a given date, there would be neither contributions accepted nor payments made. The plaintiffs, as members of the society, brought the action to have the society dissolved and wound up under the supervision of the court, and to have the rights in the remaining funds ascertained.

The court rejected the argument that the members at the time the society ceased to do business were entitled to the surplus funds still on hand by reason of resulting trust. Thus, the decision in Cunnack was followed on this critical point. However, unlike the situation in Cunnack, the society here was still in existence, still had members, and still could, through its committee, amend the society rules to allocate all the funds to the surviving members. This disposed of any claim of the Crown to take by bona vacantia. The only possible restriction on this ability of the members to so dispose of the funds was a possible right in the company, which had contributed to the funds. The potential claim of the company was disposed of by treating the company's contributions as gifts to the society, i.e., as an accretion to the funds of the society. In turn, those funds, including the accretions, would belong to the aggregation of individuals who from time to time formed 'the society' but whose rights to make use of the funds were, during the existence of the society, controlled by the contract between them.

The decision that this 'society', created by the company for the purpose of facilitating part of the employment arrangements between the company and its employees, created the same kind of legal relationships as an association of members banding together for their mutual support, is surprising. Admittedly, the company, in setting up the 'society', used the form and trappings of these 'mutual support' organizations, and this appears to have been a major element in its failure to share on termination. From today's vantage point, the conclusion

that the company's contributions were 'gifts' to a fund of an independent association, of no different status than a donation from a sympathetic stranger to the funds of an unincorporated 'members' club' would be, is even more surprising. Perhaps, in Ireland, in 1878, it was easier to regard an employer's contribution to a social benefit plan for employees as a gift, rather than as part of a compensation package, designed in response to market forces, arising out of an overall employment contract, than is the case in Ontario today. On this point, I believe that the Irish court ignored the substance in favour of the form, and decided the case incorrectly, but whether or not this is so, the ratio decidendi on this point is not applicable to what I understand to be a typical 'defined benefit' pension plan in Ontario today. Pension plans create direct contractual relations between employer and employees, under which the employee receives stipulated pension rights, and a corresponding beneficial charge against the assets of the fund, to secure those rights, as part of the compensation for his or her services. There is, in my view, nothing analogous to an 'association' of employees in which the equitable ownership of the fund could be said to be vested, and to which the employer's contributions could accrete.

In summary to this point, then, it is my opinion that neither statute (except to the limited extent referred to above) nor the doctrine of resulting trust gives to employees, or other beneficiaries of pension rights under 'defined benefit' plans, any ownership right in amounts surplus to the requirements of the plan for funding the pension obligations thereunder.

IV THE ALLOCATION OF PROPERTY RIGHTS IN SURPLUS BY CONTRACT

In a number of plans which I have seen, whether in reported cases or otherwise, the contractual provisions have in some manner excluded the employer from any right to participate in surplus on the termination of the plan, and have provided for distribution among the then employees, or some wider group of beneficiaries. For example, the terms of the plan under review by Addy J. in Little et al. v. Kent-McClain of Canada Ltd., et al. (S.C.O. February 25, 1972, unreported) were quoted as reading:

> '16. If the Plan is discontinued, the Pension Trust Fund shall be allocated among the Members, retired Members, their estates, beneficiaries and contingent annuitants in an equitable manner determined by the Pension Committee in consultation with the Actuary and the Company.'

The term 'Pension Trust Fund' was contractually defined as 'the assets for the time being in the hands of the Trustee under the Trust Agreement.'

This exclusion of the employer on termination was reinforced by an exclusion of the employer from beneficial rights in the funds of the ongoing plan:

> '... all contributions made by the Company are irrevocable and together with all contributions made by the members, may only be used exclusively for the benefit of Members, retired members, their estates, beneficiaries and contingent annuitants.'

Where a plan makes some similar allocation of surplus on plan termination, excluding the employer from any beneficial interest in the plan assets upon termination, the beneficial rights of ownership in the funds reside in that contingent class of persons who are designated as entitled. As I have previously suggested, an attempt to withdraw surplus from an ongoing plan derogates from the right of that contingent class to share surplus funds on termination. For, while the fact that there is a present surplus does not guarantee that, on termination, there will be any surplus to be distributed, according to the plan, permitting withdrawal from an ongoing plan would defeat the right to have that surplus applied for the benefit of the group designated to share on termination, should termination occur while that surplus exists.

Thus, where the plan contains some provision, of an effect similar to the provision in the plan quoted in the <u>Little</u> case, <u>supra</u>, it is my opinion that the employer has no right to withdraw surplus from an ongoing plan, <u>unless</u> the employer derives that right under the terms of the plan itself. For example, a plan, in theory, could give to the employer power to withdraw, for its own benefit, amounts determined in some manner to be surplus to funding requirements.

Exercise of such a power would be, in effect, an exercise <u>pro tanto</u> of a power of appointment over the assets of the plan, vesting the beneficial ownership

of the assets designated for withdrawal in the employer, and permitting the trustee to transfer those surplus assets over to the new beneficial owner. There is nothing in trust law theory to impede such a result. As Professor Waters has remarked, '... a settlor may reserve not only a power of revocation, but any power he likes provided that he does not contravene any principle of public policy.' [The Law of Trusts in Canada (2nd ed.), at p. 211.] For example, the Supreme Court of Canada accepted the validity of a wide power in trustees to reduce a benefit currently being enjoyed by a pension recipient. In this case, there was no contractual element to control use of the power. See Wright v. Diocese of Huron (1884), 11 S.C.R. 95.

Many of the problems in the reported cases, and in other disputes of which I am aware, have arisen because an employer has attempted to create, at some time after a plan has been established, such an express power to remove surplus from an ongoing plan. The employer has been attempting to make use of a power of variation, commonly found in plans. Again referring to the plan before Addy J. in Little, supra, it contained a provision that the employer 'must necessarily reserve the right to change, modify, suspend or discontinue the Plan, or reduce its contributions, if in the future the Board of Directors of the Company consider [sic] circumstances so require.'

In my opinion, what these cases are turning on is the true scope of the amending power upon which the employer is attempting to rely in the particular case. To review, if the documentation either contains a power in the employer to withdraw surplus, or if that power can be created by use of a power of variation, there is nothing in trust law doctrine to preclude the use of such a power to make the withdrawal.

In my opinion, what the courts in cases such as Little, supra, Re Reevie et al. and Montreal Trust Company of Canada supra, or Re Heilig et al. and Dominion Securities Pitfield Ltd. et al. supra, are doing, when one cuts through the language they are using in the particular cases, is applying a contra proferentem approach against the employer in construing the power of amendment or modification reserved by the plan. Where the court finds language in the plan which it construes as irrevocably dedicating all contributions into the plan to the use of employee members of the plan, then (at least absent the clearest language to the contrary), the court reads any power of amendment exercisable

by the employer as restrained and controlled by that original dedication. That is, the power will be treated as not extending to an amendment which would permit the plan funds to be used for a purpose other than the use of the employees or other beneficiaries, and therefore, as not extending to permit employers to withdraw surplus, whether from ongoing plans or on termination.

The approach of the Canadian courts, exemplified by the cases cited above, is consistent with the approach taken to functionally similar problems by Federal courts in the United States of America.

In the U.S.A., under the Employment Retirement Income Security Act of 1974, (ERISA), the general rule is that assets of a pension plan governed by that Act are to be held for the exclusive benefit of plan members. However, ERISA provides for an exception to this general rule, in that, on termination, residual assets may be distributed to the employer if all liabilities under the plan are satisfied, if such distribution does not contravene any law, and if the plan provides for distribution in the circumstances. These provisions, then, are in substance very similar to the requirements set out in s.14(6) of Regulation 746, as amended, under the present Pension Benefits Act, or under s.80(4) of the new Act. Prior to ERISA, it was apparently common for U.S. plans to contain clauses prohibiting diversion of assets from the exclusive benefit of participants, to enable the plans to qualify for preferential tax status under the Internal Revenue Code. It was not common for plans to make any reference to surplus funds. After ERISA, a number of cases arose where employers sought to make use of amendment powers in plans to expressly provide that actuarial surpluses existing at termination should belong to employers, to comply with one of the ERISA requirements for withdrawal of surplus by employers. Several legal challenges by employees to such amendments reached the Federal courts. The usual line of attack was to argue that the amending power was restricted in its operation by its own terms or the terms of other clauses in the plans from creating any right in an employer to surplus funds. If the use of the amending power could be so restricted the plan would not provide for withdrawal by the employer, and, under ERISA, withdrawal would then be precluded.

A series of judgments in the United States Court of Appeals established that the resolution of this issue turned on the wording of the particular documents. However, in general, the U.S. courts have been more willing to construe

favourably to employers than have Ontario courts in the cases mentioned. The approach taken by the U.S. courts which have found that the challenged amendment was permissable, and successful in its goals, resembles that taken by Anderson J. in Campbell et al v. Ferrco Engineering Ltd. et al (1984), 4 C.C.L.I. 268 (Ont. H.C.J.). That is, certain terms in the documents are 'read down' in their meaning, because of the context. For example, in Ferrco, the plan originally provided that, in the event of discontinuance, the assets would be used exclusively for the provision of benefits to members in an equitable manner. A subsequent amendment purported to provide that on discontinuance, no member should receive more than the stipulated benefit, and any surplus assets would belong to the company. Anderson J. construed 'benefits', as used in the original plan, as referring to 'benefits to which members are expressly entitled pursuant to other articles of the plan', and not as including additional benefits which might derive from employment of surplus. Thus the obligation to use funds 'exclusively for the provision of benefits to members' was discharged when the defined benefits were provided for, and the clause therefore did not prohibit an amendment to allocate surplus to the employer.

As mentioned, the U.S. cases have used a similar approach. Amendment provisions, which contained provisions to the effect that no amendment should enable an employer to recover or divert from the participants the funds held in the trust, were treated as prohibiting diversion prior to satisfaction of all of the plans' liabilities under its defined benefit provisions, but not beyond this point. Thus, amendments to allocate surplus to the employer were not barred. See Re C.D. Moyer Co. Trust Fund, 441 F.Supp. 1128 (E.D. Pa.1977), aff'd without opinion, 582 F.2d 1273 (3rd Cir. 1978); Pollock v. Castrovinci, 476 F. Supp. 606 (S.D.N.Y. 1979), aff'd without opinion 622 F.2d. 575 (2nd Cir. 1980); Washington - Baltimore Newspaper Guild Local 35 v. Washington Star Co., 555 F. Supp. 257 (D.D.C. 1983), aff'd without opinion, 729 F. 2d 863(D.C. Cir. 1984), and Wilson v. Bluefield Supply Co., 819 F. 2d 457 (4th Cir. 1987). However where the language of the original documentation, dedicating the funds to participants and excluding recovery by the employer, was stronger, then the purported amendment would be treated as improper, and a result similar to that reached by the Ontario courts in Little, supra, or Reevie, supra, would be reached.

See Bryant et al v. International Fruit Products Co. Inc. et al, 793 F. 2d. 118 (6th cir. 1986), cert. denied 107 S.Ct. 576 (1986).

It may be of some interest to note apparently conflicting policy approaches taken by the U.S. courts in their approach to the construction of the documents before them in a particular case, as identified by the dissenting Circuit Judge in Wilson v Bluefield Supply Co., supra. The Court in Moyer, supra, saw the result in that case as 'consistent with the policies underlying the enactment of ERISA'. 'Employers will continue to fund their plans ... but will not be penalized for overfunding in 'an abundance of caution' as a result of a miscalculation on the part of an actuary. Thus, employees will continue to be protected to the extent of their specific benefits but will not receive any windfalls due to the employer's mistake in predicting the amount necessary to keep the plan on a sound financial basis.' (per McGlynn, Dist. Judge, in Moyer, 441 F. Supp 1128 at 1132). On the other hand, the court in Bryant saw recapture by the employer as a windfall to the employer, at least to the extent that the employer had previously obtained tax advantages from its contributions. See the majority judgment in Bryant, at 793 F. 2d 118 at 123, which stated, 'We do not believe this decision will result in a windfall to the [employees]. The plan was designed to provide some financial security for the employees, all of whom lost their jobs when the company ceased operations shortly after terminating the pension plan.'

The restrictive reading of the scope of a power of amendment, which, perhaps somewhat inaccurately, I have characterized as an application of the contra proferentem doctrine, may also be arrived at on the basis of a contract doctrine that there is some ultimate limitation upon the scope of a power given to one contracting party to amend unilaterally the terms of a contract. The alteration so made must not be incompatible with the fundamental purpose of the contract, or, in another formulation, not outside the contemplation of the parties at the time the contract is made. None of the pension plan cases in Canada or in the U.S.A. have referred to this doctrine from contract law in the reasons for judgment, but the approach which is guiding the courts currently is consistent with these cases.

First, subject to the above controlling principle, a unilateral power of

amendment may be employed to modify, and even remove contractual rights from another party, even after enjoyment of the rights has commenced.

An early leading case is Smith v. Galloway, [1898] 1 Q.B. 71. S joined a benefit society whose rules contained a power of amendment by a special meeting of members. Subsequently, S claimed a sick benefit from the society, was awarded such a benefit, and commenced to receive it. Six years later, in 1896, the amending power was duly exercised to change the rule governing the category of benefit recipients which included S, to subject that category of persons to certain conditions similar to those already imposed on other categories of recipients. S breached the conditions, and the society excluded him from further benefits. S brought this action, in which the propriety of utilizing the amending power to deprive him of a benefit already being enjoyed was raised. Wright J. (Kennedy J. concurring) said, '... I think it was under a power of alteration in existence at the date when the plaintiff joined the society that the alteration in 1896 was made, and that [the plaintiff] cannot be heard to complain of the exercise of a power to which by joining the society he assented.' (p. 76)

Wright J. expanded upon this proposition as follows:

> 'Then the second point made by the plaintiff was that if the plaintiff did by joining the society assent to a subsequent alteration of the rules, he did so subject to this limitation, that the alteration should not affect a vested interest, and should not deprive him of any benefit to which he had already become entitled in possession at the time of the alteration made. But I can see no ground for introducing any such limitation into his contract. It is a matter of every day occurrence for societies such as this to make alterations in rules as to the allowance of sick pay affecting even those members who are already in receipt of it. When the only contract between the society and the member is the original contract under which he became a member and that, as is the case here, provides for alterations to the rules, he is bound by any subsequent alteration that may be made within the power of alteration, whatever the extent of the alteration may be.' (p. 77) (my underlining)

The case indicates that, as a matter of law, a very wide scope may be given to a unilateral amending power in a contract. However, the underlined portion suggests a possible control over this potential, i.e., a restrictive construction of the scope of the power.

Smith v. Galloway, supra, appears to have been relied upon by the Ontario Court of Appeal in Baker v. I.O.F., 24 O.A.R. 585, affirming (1897), 28 O.R. 238, where the exercise of a power of amendment, contained in the original by-laws of the organization, to reduce a sick benefit after the plaintiffs had qualified for it and started to receive it, was upheld.

The Ontario Court of Appeal also considered the effect of an amending power in Armstrong v. Toronto Police Benefit Fund (1902), 1 O.W.R. 829, although here, language is used which can be read as restricting amending powers to situations where no rights have vested. The plaintiff claimed a certain pension benefit from a benefit society organized in 1881. The original rules were amended in 1894, changing the method of calculation to the plaintiff's detriment. The plaintiff retired in 1900, and claimed a benefit calculated on the basis of the original rules. The C.A., upholding the lower court, held that the amendments were binding on the plaintiff. There was no question of vested rights involved, for, in 1894, when the rules were amended, the plaintiff had not acquired any vested right to a pension. His rights were the same as all other members until he acquired a vested right under the rules in force at the time he so acquired such right. Unfortunately, the report does not state whether the amendment to the rules was pursuant to an express amending power, or what the terms of such power were. We are therefore unable to determine whether the emphasis on 'vested rights' as an apparent 'cut-off' point for the operation of an amending power was considered by the Court to arise out of some (unstated) general principle, or whether it arose from the express terms of the amending power contained in the original rules. By 'vested rights', the Court seems to be referring to rights to which a person has fully qualified, and upon the enjoyment of which the person has entered.

Smith v. Galloway, supra, was followed in England in Morgan v. Driscoll (1922), 38 T.L.R. 251, and Grimwood v. Aldenham (1928), 72 Sol.J. 569. However, the cases were now suggesting that there would be some ultimate limitation upon the scope of the power, in that the alterations made by the amendment must not be incompatible with the fundamental purpose of the contract. This restriction was utilized, and possibly expanded, in Hole v. Garnsey, [1930] A.C. 472 (H.L.).

Simplifying the facts greatly, a society had rules governing, inter alia, the amount of shares for which members in certain categories must subscribe.

The rules contained an amending power, exercisable at a special general meeting. This power was utilized to amend the rules in such a way as to require members in the plaintiff's position to subscribe for a substantial number of additional shares. The plaintiff was not part of the majority which voted for the amendment, and did nothing subsequently to acquiesce in the amendment.

The House of Lords held that, although there was nothing either in the governing statute or the general law to preclude the imposition of such an open-ended liability upon the plaintiff, if the liability had been imposed by the original rules, nevertheless as a matter of principle, such a term could not be introduced later by employment of an amending power. Lord Dunedin (at p. 487), puts the basis of the disallowance on vagueness and uncertainty of terms. If the obligation of the plaintiff to take shares could be varied, without any restriction or original guidelines, as to the range of amendment, the obligation would be too uncertain to be enforced. Apparently, although he does not expressly say so, what Lord Dunedin is doing is saving the original obligation, created by the rules in effect when the plaintiff joined, from the vice of uncertainty by refusing to recognize the validity of the amending power to change the rules.

Lord Atkin, who concurred with both Lord Dunedin and Lord Tomlin, appeared to place his own emphasis on the inability to use an amending power to alter a fundamental purpose of the association for which the contract was made.

> 'I think that the consent of a member to such a rule as [the amendment power] is not an assent to have the purposes of the society or the amount of his share subscription altered against his will. Full effect is given to the rule by limiting its operation against dissentients to matters which are within the scope of the administration of the venture as originally framed. I should myself regard as within this definition such matters as the annual subscription to a social or other club which may fairly be regarded as a matter of internal administration. But an increase in capital contribution is something quite different.' [p. 496]

A still different emphasis to the reasons for narrowing the scope of a unilateral amending power was given by Lord Tomlin. He said, at p. 500 et seq.:

> 'Does a power enabling a majority to amend the rules justify as against a dissenting member any alteration whatever where, as here, neither by the statute nor the rules themselves is any one

> rule expressed to be more fundamental and unalterable than any other?
>
> The answer ... must be in the negative. In construing such a power as this, it must, I think, be confined to such amendments as can reasonably be considered to have been within the contemplation of the parties when the contract was made, having regard to the nature and the circumstances of the contract. I do not base this conclusion upon any narrow construction of the word 'amend' in the Rule 64 [the amendment power] but upon a broad general principle applicable to all such powers.'

Lord Tomlin went on to conclude that the amending power there did not extend to permit the amendment sought to be made, because the parties could not have contemplated that they would ever be liable to a levy over and above that contemplated under the original terms.

Lord Tomlin's ratio was adopted in Wunderlich Bros. v. North West Mutual Fire Association, [1936] 1 W.W.R. 297, 300 (Sask. C.A.), to defeat an attempt to amend rules, after insurance policies had been taken out, to reduce the participation dividends to which persons who did not renew their policies would be entitled. Citing Hole v. Garnsey, Turgeon J.A. held that this result could never have been in the contemplation of the parties when the contract was made.

The doctrine applied in cases such as Hole v. Garnsey does not, of itself, compel a conclusion either way on the scope of an amending power reserved to an employer in a pension plan. The doctrine will only become applicable if it is concluded that the amendment proposed has a result which is outside the contemplation of the parties when the contract was made. In my opinion, when the court finds terms in the original plan which purport to exclude the employer from participation in funds paid into the hands of the plan trustee, the courts will reach the conclusion that the amendment is not within the parties' contemplation, unless the power to amend in this fashion is granted in the most explicit terms.

V SUMMARY

Under present Ontario law, there is no general answer possible to the question of who might be entitled to any surplus in an ongoing 'defined benefit' pension

plan. Present legislation provides controls on the withdrawal of any surplus funds, but, except in the limited circumstances previously noted, it does not address proprietary entitlement to that surplus.

The question of proprietary entitlement to a surplus must be answered by analysis of the terms of the plan. In many plans in which a dispute has arisen between employer and employees over the employer's right to withdraw surplus, the terms of the plan have been construed to at least exclude the employer from any participation in the accumulated funds of the plan, should the plan terminate. In such case, the employer can have no right to any surplus in an ongoing plan, unless the plan explicitly creates such a right. Attempts to make use of a general amending power, frequently reserved to employers, in order to create an explicit right to remove surplus, will generally be struck down by the court, on the basis that the power to amend is not wide enough in scope to reverse the original exclusion of the employer.

However, if the terms of the plan are not construed as precluding participation by the employer in any surplus, trust law doctrine will not give the employees any right to participate in a surplus as owners or part owners thereof. The better line of cases holds against allowing any such right to arise in their favour by virtue of a resulting trust. If they are to have participatory rights in the surplus of an ongoing plan (or of a terminating plan) it is because the terms of the plan or, where the plan does not allocate surplus to the employer on termination, the statute, allocate such rights to them. Absent such allocation, they have no right beyond the right to have their contracted benefits secured as required by the plan and the general law.

An Analysis of Ontario Law with Respect to Surplus in Pension Plans

Raymond Koskie

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An Analysis of Ontario Law with Respect to Surplus in Pension Plans

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I NATURE OF THE PROBLEM

You have requested our analysis of Ontario legal authorities on claims to surplus in pension plans. This request may be alternatively framed as the interrogatory: **who owns pension plan assets?** Questions as to entitlement to surplus arise in two distinct situations: while the plan is **ongoing**, and after it is **terminated**. Each situation must be carefully examined to determine whether different legal approaches are warranted. As well, it is necessary to pay close attention to how the cases deal with **contributory plans** as opposed to **non-contributory plans**.

II MATERIAL CONSIDERED

In preparing this analysis, we have examined judicially determined cases from Canada, the United Kingdom and United States. Additionally, we have canvassed periodical literature and texts relating to trusts and pensions in the above jurisdictions. All legislation and government circulars relevant to the determination of the cases examined, or to an understanding of the commentaries surveyed, have been considered. Notwithstanding the wide-ranging scope of our inquiry, our focus, however, remains entitlement to surplus under Ontario law.

III METHODOLOGICAL BACKGROUND AND ASSUMPTIONS

A What is Surplus?

Section 1 of the Ontario Pension Benefits Act, 1987 ('the Act') defines surplus as follows:

> "surplus' means the excess of the value of the assets of a pension fund related to a pension plan over the value of the liabilities under the pension plan, both calculated in the prescribed manner'.

Both the Act, and administrative policy set out in Pension Commission of Ontario ('PCO') Guidelines under the predecessor legislation, stipulate that in cases of proposed asset withdrawal from active plans, a surplus 'cushion' must remain in a fund. Where this is the case, available surplus will be less than the net actuarial surplus. This differential treatment recognizes the reality that the amount of surplus in a plan may vary from day to day. An actuarial determination of what is surplus can only come close to being precise when the plan is being wound up. Indeed, the Ontario Court of Appeal noted this distinction in Re Reevie and Montreal Trust Company (1986) 53 O.R. (2d) 595 (C.A.), at page 600:

> 'While the plan continues to operate, a surplus will simply afford a cushion against years during which the fund performs poorly, or, it may lead to the reduction of future contributions. If the plan is discontinued, other considerations will arise.'

B How Does Surplus Arise?

Any or all of the following briefly noted factors may contribute to the accumulation of surplus in a pension fund:

a) the actuarial assumptions to be observed in connection with pension plans are mandated in Ontario by regulation. These are conservative assumptions and so estimates of investment return tend to be lower than the actual return experienced by the fund.

b) the fund may experience large investment gains in excess of assumptions.

c) some gains may be attributable to inflation, which will often operate to increase fund earnings to a level higher than that assumed by the actuaries.

d) where inflation is an operating factor, the failure to improve pension benefits in accordance with increasing inflation will also contribute to the accumulation of surplus.

e) surplus is created not only by an increase in the value of assets, but by a reduction of plan liabilities. Such reduction can occur where mass lay-offs of employees are involved, particularly if those employees are not vested.

f) surplus can be created almost instantaneously where actuaries change their assumptions in midstream. Sometimes these changes are made for legitimate reasons, for example, to reflect increased employee turnover rates, but other times they are made for the sole purpose of increasing the amount of surplus. In the latter situation, any surplus is clearly only artificial.

g) surplus may be shown to exist in a plan where the employer uses plan funds to purchase annuities for members. Because of the competitive nature of the annuity business, attractive interest rates may be offered. Because these interest rates will be higher than the conservative ones assumed by the plan, it will require less money to purchase these annuities than to provide the benefits out of the plan.

Surplus may exist in a plan because of the operation of any one of the above factors in isolation, or more than one of them in combination with each other. Our identification of the above factors suggest that it is improper to characterize surplus in plans as a 'windfall' because the surplus can be artificially created and a change in economic circumstances can convert surplus to a deficit, as noted in the passage from <u>Reevie</u>, above. It is important to appreciate how surplus arises, although this consideration has not been a factor in court decisions to date with respect to determining who is entitled to the surplus. Because the PCO does not make its decisions available to the public, we cannot comment

on how their approach to consenting to withdrawals is affected by a discussion as to how the surplus arises in the first place.

C Why Is The Surplus Problem So Difficult?

There has recently been considerable litigation in Canadian jurisdictions touching on the issue of surplus. Regardless of whether the cases are framed as actions, judicial review proceedings, or unfair labour practice complaints before labour relations tribunals, at the centre of each the question looms: **who owns the surplus?**

In determining the issue of entitlement, adjudicating bodies have had to address specifically the following contentious issues:

a) Are pension funds deferred wages or insurance guarantees provided by the employers? In other words, are the employees promised only the benefits, or do they have an entitlement to the fund itself? In determining this issue, courts will generally look to plan documents and trust agreements, and their analysis may additionally be affected by whether the plan is contributory or non-contributory.

b) Is the plan a trust, and if so, who are the beneficiaries and what are the obligations of the trustees?

c) If the pension fund is a trust, is it irrevocable, and can it be varied in any way?

The enormous sums of money involved provide incentive to litigate. So does the unsettled state of the law: although entitlement to surplus has been the subject of judicial determination in five of the ten provinces (including the Reevie decision of the Ontario Court of Appeal), the matter has yet to be dealt with by the Supreme Court of Canada. The sheer number of procedural and substantive avenues available to litigants in surplus cases ensures that the courts will be a long time in sorting out the principles involved in a way that will provide adequate guidance to plan administrators, beneficiaries and employers. To date, courts and tribunals adjudicating these issues in Canada have applied

any or all of the following: common law principles pertaining to contracts and trusts, and regulatory provisions governing income tax, pension benefits, or collective bargaining. In many cases, the resolution of the problem suggested by the application of one set of principles will conflict with that suggested by another. Legislation governing the issue, or at least stipulating which principles of law ought to govern outcomes, may be the only solution.

D Approaches To The Problem

In the cases to date, there has been a tendency to attempt to use 'moral' arguments to solve the surplus problem. Employees maintain that pension funds represent deferred wages, and that surplus is either artificially created by the employer or attributable to the effects of inflation. Although the fund gains dramatically from the inflationary effects, workers receive no increase in their benefits. Employers, on the other hand, maintain that they take the risk that the funds will not be sufficient to meet the liabilities, and so provide for conservative actuarial assumptions to minimize this risk. This argument is undermined somewhat by the fact that the PCO requires the use of conservative actuarial assumptions. The justifications for entitlement maintained by employees and employers essentially involve political issues. Accordingly, they are properly the domain of the legislature, and the courts cannot avail themselves of these arguments.

In contrast to the moral or political arguments often raised by advocates, courts have tended to adopt one of the following approaches:

a) An analysis based on the provisions of the plan documents. Employers have been generally unsuccessful where the documents do not clearly entitle them to the surplus. This approach is applied regardless of whether one determines the pension plan to be a contract or a trust.

b) The application of trust law principles, for example, whether a trust is irrevocable, whether trustees have acted in good faith or breached any fiduciary duty to beneficiaries, and whether resulting trust principles are relevant.

c) The application of administrative law principles which ensure procedural protections in respect of any 'interest' plan participants may have in the fund. This would require that they be given notice of any proposed withdrawal and an opportunity to make submissions to, for example, the P.C.O., without necessarily determining the entitlement issue. The court's imposition of a duty of fairness on employers and pension regulators in such circumstances is clearly predicated on a recognition of the degree of their 'interests' in a plan:

> 'Who is more interested in the solvency of a pension plan than its members, who are either depending upon it as a source of income in their retirement years, or looking forward to the day when they will, or must?' (Re Collins and Dominion Stores Limited, (1986) 56 O.R. (2d) 274, (Div. Ct.) at p. 286)

All three approaches may be valid depending on the nature of the case.

IV THE ANALYSIS

In the previous section of this paper we identified three ways in which courts have approached the issue of surplus entitlement. It is useful to examine the cases illustrating each of these approaches in turn.

A Analysis of Plan Documents

In a relatively early Ontario case, Little v Kent-McLain of Canada unreported, Jan. 1973 (O.H.C.), aff'd [1972] C.C.H., Canada Pension Reports, para. 8,054 (C.A.), an employer attempted to amend the plan unilaterally to provide for reversion to itself. This amendment was not permitted where the plan had originally provided that surplus would revert to the employees and had additionally stated that contributions were irrevocable. Reevie involved a similar factual situation, and a similar result. As this result was reached partly through the application of trust law principles, the case will be discussed more fully when we consider that approach.

In some American cases, however, courts have permitted employers to amend plans unilaterally so as to revoke employee entitlements to surplus, and substitute provisions providing for their own entitlement. Such amendments are permitted on the basis that the pension plan governs what the employees are entitled to expect, and once they have received the specific benefits promised therein, they are not entitled to any 'windfalls'. The leading case in this area is In re C.D. Moyer Company Pension Trust (1977) 1 E.B.C. 1368 (D.C. - East D. Penn.), 441 F. Supp. 1128. Cases following Moyer include Washington-Baltimore Newspaper Guild v Washington Star Company (1983) 3 E.B.C. 2609 (Dist. Columbia) and Pollock v Castrovinci (1979) 1 E.B.C. 2091 (D.C. - So.D.N.Y.) 476 F. Supp. 606. In the last case, the court was also willing to find in favour of the employer on the basis of the doctrine of resulting trust, and on the theory that the employees would be unjustly enriched were they allowed to state a claim to the surplus.

In Ontario, in a situation where the plan was initially silent as to entitlement to surplus, it was held that the employer could amend it so as to provide for reversion to itself. See Campbell v Ferrco Engineering (1984) 4 C.C.L.I. 268 (O.H.C.). Where, however, the plan was initially silent as to entitlement to surplus, and was not amended, it was held that the employer could not establish his contractual entitlement to the assets in Re King Seagrave Limited and Canada Permanent Trust Company (1985) 51 O.R. (2d) 667, (H.C.J.). A similar conclusion was reached by an American arbitrator in Re Washington Star Washington-Baltimore Newspaper Retirement Plan (1983) 4 E.B.C. 2441 (Gellhorn). He based his decision on two factors:

a) the plan was established for the purpose of providing employee benefits, and the accumulation of surplus was not contemplated at the time it was established;
b) the employees had 'paid for' contributions to the plan by making concessions in other areas of bargaining.

In the Washington Star arbitration, supra, the finding that the employees had 'paid' for the contributions was based on specific evidence of negotiating trade-offs. Even in the absence of such evidence, however, courts have held

that employees cannot establish their entitlement to pension assets because money in the fund represents 'deferred compensation'. The rationale for this approach, at least in the case of a contributory pension plan, is set out usefully in the following passage from a House of Lords decision:

> 'What, then, is the nature of a contributory pension?...Take a simple case where a man and his employer agree that he shall have a wage of 20 pounds per week to take home... and that between them they will put aside 4 pounds per week. It cannot matter whether an insurance policy is taken out for the man and the 4 pounds per week is paid in premiums, or whether the 4 pounds is paid into the employer's pension fund. And, it cannot matter whether the man's nominal wage is 21 pounds per week so that, of the 4 pounds, 1 pound comes from his 'wage' and 3 pounds comes from the employer, or the man's nominal wage is 23 pounds per week, so that, of the 4 pounds, 3 pounds comes from his 'wage' and 1 pound comes from the employer...His earnings are greater than his weekly wage. His employer is willing to pay 24 pounds per week to obtain his services, and it seems to me that he ought to be regarded as having earned that sum per week. The products of the sums paid into the pension fund are in fact delayed remuneration for his current work.' (Parry v Cleaver [1969] 1 All E.R. 555 (H.L.) at p. 559).
>
> (In the above quote 'pounds' means 'pounds sterling'.)

The deferred compensation theory was accepted as prohibiting an employer's attempt to amend a plan after termination to provide for the reversion of surplus to itself in Audio Fidelity Corp. v Pension Benefit Guaranty Corporation (1980) 2 E.B.C. 1856 (C.A. - 4), 624 F. 2d 573; and Delgrosso v Spang and Company (1985) 6 E.B.C. 1940 (C.A. - 3), rev'g (1984) 5 E.B.C. 1656 (W.D. Penn.). In Delgrosso, the pension agreement prohibited reversion to the employer, but an amendment to the plan by the employer provided for such reversion. The court, after applying the deferred compensation theory, reformed the plan to conform to the pension agreement. The deferred compensation theory was applied in yet another recent American decision, Bryant v International Fruit Products Company Inc. (1986) 7 E.B.C. 1688 (C.A. - 6). Here the plan initially prohibited the reversion of surplus to the employer and it was held that he could not get around this prohibition through a series of amendments ultimately altering the plan to provide for his entitlement. In a more general statement, it was also held in the case that to allow the employer access to the surplus would amount to a 'windfall' for him.

English courts have only just begun to grapple with the surplus entitlement issue. The first case in which it arose was Re Imperial Foods Limited's Pension Schemes [1986] 2 All E.R. 802 (Ch.D.). This case involved the sale of a portion of a business and the transfer of some employees who had been covered by a pension fund. A question arose as to what portion of the fund was to be transferred to cover plan liabilities to them. Essentially, the choice was between transferring a share of the fund, or a smaller amount representing the accrued liabilities in respect of the transferred employees. The court held that it was actuarially proper to transfer the smaller amount, and in statements that were not necessary to its decision, seemed to indicate that the employees were restricted to claiming their defined benefits and had no claim to any surplus

The second, and more recent case, is Re Courage Group's Pension Scheme [1987] 1 All E.R. 528 (Ch.D.). This case involved the purchase of a group of companies by H, a large holding company. H then resold some of the subsidiaries while attempting to retain the surplus that had accumulated in their employee pension plans. H attempted to achieve this effect by substituting itself for the original employer in the plan documents, but the court held that this was not a proper amendment of those documents as the scope of the amendment provision prohibited amendments contrary to the purposes of the plan. The court held that it would be contrary to those purposes to allow an unrelated party who was in no sense an employer, to strip surplus. The case was decided primarily on the basis of the applicability of contract principles but the trust doctrines were referred to as well.

In Ontario, where contract principles have been applied in the examination of surplus cases, employers have only been able to establish their entitlement in situations where plan documents made clear provision for this result. The American cases have led to more mixed results, but there has been a recent trend towards acceptance of the deferred compensation theory as entitling employees to surplus in all but the clearest cases of employer entitlement. All of the American cases involve terminated plans, as do the Canadian ones analyzed under this section. Courage Group's Pension Scheme, on the other hand, involved an ongoing plan, although nothing in the decision seemed to turn on this distinction.

B Trust Law Analysis

An American case noted earlier, Pollock v Castrovinci, made mention of the doctrine of resulting trust as relevant to the determination of surplus entitlement. In that case, the plan was non-contributory, and the court would have applied resulting trust principles so as to entitle the employer to the surplus. Similarly, in a decision of the British Columbia Supreme Court involving a terminated non-contributory plan, the employer was found to be entitled to the surplus assets on the basis of a resulting trust, notwithstanding the fact that the plan text prohibited such reversion. See Canada Trust Company and Cantol Limited et al (1979) 103 D.L.R. (3d) 109. The same principle was applied in an unreported Manitoba Queen's Bench decision of a year later in Martin and Robertson Administration Company Limited (decision of Nitikman J., 1980). Here the plan was contributory, and so the effect of the application of the resulting trust doctrine was that the assets were split according to contribution. With the exception of the Martin and Robertson case, where application of the resulting trust principles led to the shared entitlement of employer and employee, this doctrine has been used by courts outside Ontario to justify employers claims to entitlement. The reasoning adopted is that the provision of the defined benefits promised by the plan has not exhausted plan funds, and that the surplus therefore results to the settlor because he is the one who made the contributions. The resulting trust theory could as easily be applied to justify employee's entitlement to the surplus. If we accept that pension funds represent a form of deferred compensation, then the actual source of the contributions is not the employer but the employee, because he is immediately made less well off by the payment. In recent family law cases, Canadian courts have shown themselves willing in resulting trust situations to examine the ultimate source of monetary contributions in this way.

The doctrine of the resulting trust has not been applied in Ontario to pension plans, although other trust doctrines have. The leading Ontario case is Reevie v Montreal Trust, supra, a decision of the Court of Appeal. The plan in question originally provided that it existed for the sole benefit of the beneficiaries, and that contributions made to it were irrevocable. The employer attempted to amend the plan so as to provide for the reversion of all assets to

itself after benefit obligations had been met and any benefit increases had been effected. In determining the propriety of this amendment, the court stated:

> 'At the centre of this dispute lies the simple fact that the funds in dispute are trust funds. The settlors of the fund were the employer (Canada Dry Limited) and the employees. The pension plan and the trust agreement provide that the contributions were irrevocable and that the beneficiaries of the trust were the members of the pension plan (i.e., the employees, spouses, etc.).' (at p. 600)

The court found that the amendment of the plan proposed by the employer amounted to a revocation of the trust. According to well established trust law, a settlor cannot revoke his trust unless he has expressly reserved the power to do so. As a result, the amendment was invalid.

The Court of Appeal's finding that pension funds are trust funds was referred to in two subsequent cases before the Divisional Court, Collins v Dominion Stores Limited, supra, and Heiglig v Dominion Securities Pitfield (1986) 55 O.R. (2d) 783. In the latter case there were conflicting provisions as between the plan and the trust agreement and it was held that the trust agreement prohibiting reversion to the employer governed.

Courage Group's Pension Schemes also involved the consideration of a number of trust law principles. It was held in the case that the scope of the amendment clause in the plan explicitly prohibited its amendment in a way that would thwart its purposes. However, it was also suggested that even in the absence of this clause, no such amendment could occur. The company as contributor could not act contrary to the purposes of the trust. Nor could the company act in bad faith or for an improper motive: i.e., the seizure of the surplus for itself or its own employees.

C Administrative Law Approach

In two Ontario cases, surplus issues have been dealt with through the application of principles of administrative law.

In Collins v Dominion Stores Limited, supra, the plan was a collectively bargained one initially providing for the employees' reversionary interest in the assets. This contractual entitlement was bolstered by the employer's oral and

written assurances over many years that the plan existed solely to benefit the employees. Late in 1985, the employer applied to the PCO for consent to withdraw surplus while keeping the plan active. Only after this permission was granted did the employer unilaterally amend the plan to enable it to seize assets in those circumstances. Employees learned of these developments through media reports and challenged the PCO's decision on the ground that it was ultra vires their enabling legislation, and that the PCO owed them a duty of fairness that had not been met. The Divisional Court rejected the first argument, but found that the employees had sufficient interest in the surplus that a duty of fairness was owed to them. Fairness in these circumstances required that they be given notice of the intended application and afforded an opportunity to make submissions. Since these things had not been done, the PCO's decision was quashed. The entitlement issue itself was not addressed in these proceedings, and was not argued subsequently as the matter settled.

Administrative law principles were applied in <u>Metro Board of Commissioners of Police and Ontario Municipal Employees' Retirement Board</u> (1985) 53 O.R. (2d) 83 (Div. Ct.), which involved an ongoing statutory plan. Here the plan replaced an earlier one which provided superior benefits to the employees. In order to make up this deficiency, a supplementary plan was established as well. When the original plan was later upgraded and the supplementary plan was no longer needed, there was a dispute as to what, if any, contributions could be withdrawn from the supplementary plan. On the basis of the provisions in the regulations, it was determined that all contributions had to remain in the plan.

Another recent Ontario case also involved a statutory pension plan. In <u>CUPE v Ontario Hydro</u>, (1987) 59 O.R. (2d) 31, (Div. Ct.) the employer attempted to satisfy its obligation to contribute to the plan by taking a 'contribution holiday', that is, by designating a portion of the accumulated surplus as its contribution for the year. The majority of the Divisional Court held that the issue raised in the case was not one of entitlement to surplus, but one of interpreting the statue so as to calculate the amount of contribution the employer was required to make in that year. Mr. Justice Reid, dissenting, rejected this analysis, and categorized the case as one of surplus entitlement, and added that as the net economic effect of a surplus withdrawal was the same as that

of a contribution holiday, the same principles ought to govern. This case has been appealed to the Ontario Court of Appeal.

Although the cases in which the administrative law analysis is applied do not, strictly speaking, deal with entitlement issues, the substantial number of procedural protections with which they clothe plan members leads to encouraging the settlement of entitlement issues by the parties.

D · Other Considerations

Two Canadian cases have involved situations where entitlement to surplus on the basis of plan documents has been decided by other legal considerations. In Re Knechtel Furniture Limited (1985) C.C.E.L. 193 (O.S.C. in Bankruptcy), the plan allowed for a splitting of the surplus assets as between employees and the employer except in the case of bankruptcy, where the employees were held to be entitled to all. The court refused to give effect to this provision, however, on the grounds that it would defraud the creditors of a bankrupt employer. In a decision of the Alberta Labour Relations Board, in Gainers Inc., dated October 28, 1986 where pension benefits were a matter for collective bargaining, it was held that the failure to disclose an intention to terminate the plan and withdraw surplus amounted to an unfair labour practice, and so was prohibited. This decision was quashed by certiorari, and the surplus dispute was then settled before an appeal could be heard.

V THE ONTARIO PENSION BENEFITS ACT 1987 (BILL 170)

Bill 170 was given Royal Assent on June 29, 1987 although the same has not yet been proclaimed by the Lieutenant Governor. The matter of pension surpluses is specifically addressed in Sections 79 and 80 of the Bill although other provisions also make reference to surpluses. Section 79 concerns itself with notice provisions to employees when an employer applies to the PCO for consent to payment of surplus from a pension fund. Current and former members of pension plans, trade unions and advisory committees as well as pensioners are entitled to notice

of surplus withdrawals whether from an ongoing plan or one which is being terminated. These persons are entitled to thirty days within which to make presentations on the employer's request for payment out. The Regulation under the Bill (still to be made public) will set out the information which must be given with this notice.

Sections 80(1) and (2) deal with withdrawals from ongoing plans. However, Section 80(10) prohibits the PCO from consenting to payment of surplus to an employer from an ongoing plan until such date as may be prescribed by Regulation.

Section 80(4) deals with the procedure to be followed where an employer applies to the PCO for consent to pay out surplus where a plan is being wound up in whole or in part. The PCO must be satisfied that a surplus exists and that there is provision in the plan for payment of such surplus. It would appear that the PCO must decide on surplus ownership although it has no clear jurisdiction to do so under the Bill. It is still open for argument that the jurisdiction to determine ownership of the assets of a trust including surplus assets, remains in the courts and that accordingly the PCO may not be able to deal with this issue if it is at all in contention. Section 80(4) provides that effective January 1, 1989, where a plan is silent on surplus ownership on wind up, monies accrued after December 31, 1986 are to be distributed among the members, former members and other persons entitled to benefits.

VI CONCLUSION

As the above examination of the cases demonstrates, the courts use various legal tools to deal with perceived injustices in surplus withdrawal cases. The Divisional Court decision in Collins v Dominion Stores Limited, supra, recognizes that employees have a substantial interest in the fate of that surplus, and that their interest is not necessarily dependent on their claiming an entitlement. It may merely rest on their right to see that the amount of the surplus is properly calculated and that their benefits are protected. In any event, it requires that certain rules of procedural fairness must be followed.

The second clear principle that emerges is that the employer will only be allowed to claim surplus where plan documents clearly entitle him to do so.

Further, where a plan is contributory, both contractual and trust law analysis appear to require that employees participate in any surplus on a plan termination. Finally, last minute amendments which divert surplus to the employer are generally not accepted as bona fide exercises. The adoption of trust law principles, such as the inability of the settlor to amend an irrevocable trust, as in Reevie, or the exercise of a trust power for an improper purpose having no connection with the provision of pension benefits, as in Courage, have also assisted employees claiming an interest in employee pension fund surplus.

Accordingly, it appears that courts are reluctant, except in the clearest cases, to find that employers are entitled to surplus in pension plans. There is no question that allowing reversion to an employer without the allocation of any part of the benefit to employees results in a perceived injustice to those employees. This is particularly the case where there is no inflation protection in place, the plan is contributory, or where the surplus is created in part by changes in actuarial assumptions, or through the purchase of annuities. Certainly where employers are free to draft a plan text and other documents and not protect their own interests, there is little reason for courts to go out of their way to protect them. This is in striking contrast to the situation with respect to employee members:

> 'The company, whether as contributor or as employer, is sufficiently protected against alterations to the schemes by being made a necessary party to any amending deed. Even in a non-contributory scheme, however, the interests of the employed members, pensioners and deferred pensioners do not necessarily coincide with those of the company. **They cannot be effectively protected at all if the all important power to amend the trust deed and rules is left to the company's sole discretion.**' (Courage, at p. 536)(Emphasis added.)

Surplus Issues Pertaining to the New Pension Benefits Act, Section 80

Donald J.M. Brown

CONTENTS

Surplus Issues Pertaining to the New Pension Benefits Act, Section 80

Donald J.M. Brown
Blake, Cassels & Graydon

I INTRODUCTION

Given the extensive analysis of the case law by Messrs. Koskie, Scane, Waters, and Adell, a further summation would be quite redundant. Accordingly, the conclusions to this paper will concentrate on the 'surplus' issues remaining in light of the new Pension Benefits Act, in particular Section 80 and other legislative alternatives to Section 80.

II WITHDRAWAL OF SURPLUS AT TERMINATION

For all practical purposes it will no longer be necessary to choose between the so-called contract theory and trust theory as the governing legal concept in deciding surplus cases, if indeed there is a true distinction to be made. Where the plan documents are silent, Section 80 has deemed their ownership and disposition. Although the words used in the Act are 'shall be construed to require' their effect will be the same as more familiar 'deeming' language.

Inasmuch as Section 80(4) deals only with surpluses arising after 1986, however, existing surpluses may have to be dealt with on the basis of documents alone and that may leave the issues of 'resulting trust' or 'bona vacantia' potentially alive, since the current regulation simply provides that where the plan documents do not provide for surpluses to revert to the sponsor they cannot be paid over to it. In such a case, particularly if there is no provision for payment to the plan participants and the funds were contributed only by an employer the surplus would qualify as 'bona vacantia'. If on the other hand, the funds are 'trust funds' in that a trust is used as the vehicle for holding the pension funds and the members were contributors and could thereby

be categorized as 'settlors', a resulting trust might still be operative. For surpluses arising after 1986, the plan members alone will be entitled to the surpluses if the plan is silent as to entitlement.

At least until 1989, and thereafter in relation to surpluses that existed at the end of 1986, the issue will remain as to whether an amendment power will be operative to change a plan's existing provisions, the issue dealt with by the Courts in Reevie and in King, Seagrave. That, in turn, may bring into play the line of cases referred to by Messrs. Scane and Koskie to the effect that an amendment power will not be construed to permit a fundamental change to the plan unless it says so unequivocally. And undoubtedly, any amendment power will be construed, as everyone has pointed out, as not permitting a change in the disposition of surplus from beneficiaries to sponsor unless the language is clear. Under whatever doctrine may be appropriate the Courts have shown that a 'policy of clear statement' will apply to any amendment power where that power is used to provide that an employer will be entitled to a surplus.

Once the magic date of 1989 has passed, however, almost certainly the existence of an unexercised amendment power, no matter how clear, will be to no avail as a result of Section 80, subsections (2) and (4).

III ONGOING PLANS

I cannot agree with any suggestion that Hydro conflicts with Reevie as far as contributions to an ongoing plan is concerned. Indeed, Reevie, in obiter, anticipates Hydro. And while it is obvious that in not having to make as large a contribution or having a contribution holiday may benefit the sponsor in a way that would be similar to a withdrawal of surplus, in terms of any legal analysis, the Courts would require clear language in the plan documents to preclude an employer from not making a contribution. Indeed, the effect of that would be to turn the plan into a form of defined contribution rather than a defined benefit plan, and in our opinion, Mr. Justice Reid's dissent notwithstanding, legislation will be required to preclude a sponsor from either reducing its contributions or increasing benefits and thereby 'using' an existing surplus in an ongoing plan.

As long as there is a moratorium on withdrawals from plans while they are ongoing, the only issue that might arise is whether a termination was a legitimate termination of a plan or simply a way to avoid Section 80(8). In such a case presumably the Commission could refuse to permit the withdrawal for that reason and if the record supported that conclusion, on appeal, it would be upheld.

IV INFLATION PROTECTION AND OTHER LEGISLATIVE DISPOSITIONS OF PENSION PLAN SURPLUSES

Before consideration of the Legislative options as to disposal of surplus two general observations seem appropriate. Firstly, any entitlement to surplus ought to be the same whether the plan is terminated or ongoing. While in the latter case some criteria as to withdrawal might be required, ultimate entitlement would seem to rest on the same considerations whether the plan is continuing or being terminated.

A second general consideration is whether any intervention should take the form of legislation and rules or whether it should rely on administrative discretion to a greater or lesser degree. On termination it is difficult to see why rules would not suffice provided the benefits under the plan were secure. With ongoing plans there is a valid argument to be made to have a greater administrative discretion.

What are the options open to the legislature? They would seem to be:

(i) keep Sections 79 and 80 as they are;

(ii) remove the 1986 limit from section 80;

(iii) provide that only plan members can have the surplus either in cash or improved benefits which would include 'inflation protection';

(iv) provide that only the sponsors are entitled to the surplus;

(v) provide that all surplus reverts to the Crown;

(vi) provide that surplus belongs to all contributors, plan members and the employer on the basis of their contributions; and that in the case of members withdrawal could be either cash or in the form of improved benefits which might be required by National Revenue.

A The First Scenario: The Status Quo

The premise of the present Section 80 is that, in fact, there is a form of agreement between employer and employee that permits market forces to operate to determine who is entitled to surplus. As a practical matter that is likely to be the case only where a union bargains over the provisions of the plan. In all other cases the decision is almost certainly to be made unilaterally by the employer, and unless compelled by some other legal restraint, the surplus will be directed to be returned to the employer whether the plan is contributory or non-contributory.

The moratorium provided by Section 80(8) does not seem to have a sound policy basis. It will lead to the termination of plans as has been the case in the United States since ERISA provides for no withdrawals from an ongoing plan. All that would seem to be warranted is some benchmark for securing the plan for the forseeable future. It is this area that some administrative discretion would be appropriate both either as to the use of surplus for members by way of improved benefits or in the case of withdrawal by the plan sponsor.

B The Second Scenario: The Status Quo Retrospectively

Unless there is an obvious reason why surpluses which have arisen prior to 1986 should not be subject to the same fate as those afterwards, it does not seem wise to create the uncertainty that would result and create possible 'resulting trusts' and 'bona vacantia' adverted to above. If after 1989, there is no provision dealing with surpluses then why should the total surplus not be disposed of as the post 1986 surplus?

C The Third Scenario: All Surplus to Plan Members

If there were no other contributors to the plan other than the plan members, it would be hard to justify a disposition to their employer. However, where the plan is sponsored in whole or in part by the employer, requiring any surplus to be paid only to the plan members has some obvious implications.

One common claim is that the surpluses should be used to provide plan members with 'inflation protection'. That is what the Manitoba guidelines have done.

One thing that seems obvious is that there is no necessary connection between 'inflation protection' and surpluses in pension plans. It would seem that if there is a legislative decision that there should be inflation protection then it should not be such that it is conditional on a plan developing a surplus; rather it should be provided for directly, probably through a reverse tax device and funded publicly. In the first place, being a member of a plan that was the subject of 'good investments' is not inflation driven nor is being a senior employee in a declining industry that has a declining work force rather than a growing one or indeed a cyclical industry where lay-offs for extended periods can arise. In those instances the amount of surplus, if any, may depend upon factors unrelated to inflation and may or may not be able to provide adequate protection. In the second place, and obviously, any need for inflation protection is universal, not limited only to those whose pension plans have yielded a surplus.

Manitoba has with its 'guidelines' provided for some inflation protection. This will undoubtedly have some negative impact on investment. To foreign investors considering a Canadian province as a site for investment, Manitoba's law will be seen as another unjustified form of state intervention, particularly by American investors. It will also discourage any serious investment policy where a surplus exists and it will encourage minimum contributions in order to avoid the creation of a surplus.

D The Fourth Scenario: All Surplus to The Sponsor

Correlatively, where the plan has contributions from the plan members it is difficult to accept that the whole surplus should revert to the sponsor on the theory that the members receive what they bargained for and the surplus is 'windfall'. It is equally a windfall to the employer which may or may not bear any relation to the risk of a deficit as is the case where there is a declining industry.

E The Fifth Scenario: All Surplus to The Crown

Escheat to the Crown seems inappropriate where the contributors to a plan, either members or the plan sponsor, continue to exist. The whole notion of escheat and bona vacantia had to do with no one with a claim to certain assets existing. And while 'windfall' may be arguable in the sense that the members contract only for 'defined benefits' and the sponsor may not expect a 'refund' of what are a form of deferred wages, it is inappropriate for the funds to be regarded as ownerless except where there are no plan members and the sponsor of the plan has ceased to exist, a highly unlikely set of circumstances.

Furthermore, to take a surplus in as bona vacantia would have the effect of causing contributions to be made on a minimum basis with possibly 'under-funding insurance' becoming a new financial product in the marketplace.

F The Sixth Scenario: Withdrawal on the Basis of Contribution

If there is to be a compulsory disposition of surplus, then it is difficult to see why it would not be on the basis of the contributions made by all parties. If the plan was employer sponsored only, then the surplus would revert to it; if it was jointly contributed to then the surplus would be withdrawn on that basis. In that way, any 'windfall' would be disposed of on the basis of contributions made. Of course, the employer would bear the risk of underfunding, but that is the nature of its obligation, to keep the plan properly funded. The employer takes the risk, if it is a risk, of the uncertainty of its contribution

level from one year to the next, and to talk of it taking a 'risk' which should translate into the right to receive a 'surplus' seems to be a mismatch of concepts.

V SUMMARY

In short, each of the five first options, leaving the status quo with or without deleting the post 1986 limitation, or providing that all surplus revert either to the Crown, to the employees, or to the employer, has unacceptable aspects or implications. If 'ownership' is to be the legislative goal, then it would seem that withdrawal of surplus on the basis of proportionate contribution by all contributors is the appropriate one and that Section 80 should be replaced with such a provision.

The foregoing, of course, does not address the possibility of Revenue Canada enacting an overriding requirement nor does it address the constitutional validity of such legislation. In the absence of such legislation, however, the disposition of surplus remains a matter of property and civil rights within the province.

Pension Plan Surpluses and the Law: Finding a Path for Reform

Bernard Adell

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Pension Plan Surpluses and the Law: Finding a Path for Reform

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I INTRODUCTION

A Problems and Processes

In very recent years, many employer-sponsored defined benefit pension plans have accumulated far more assets than actuaries predict will be needed to pay pension benefits at the levels explicitly promised by the plans. What should be done with those so-called surplus assets? Should employers be able to recover them for their own use, on the basis that the terms of defined benefit plans neither entitle the members of such plans to claim anything more than the promised benefits nor require them to run the risk of receiving anything less? Or should surpluses have to be used to protect or improve the pension benefits of plan members, largely on the basis that they have earned whatever is contributed to the plan and are therefore entitled to the full fruits of those contributions?

These questions of legal entitlement raise difficult empirical issues about what the parties to defined benefit pension plans have really agreed to, and about the various kinds of risks involved in such plans. They also raise difficult moral issues about the relative weight to be given to written terms on the one hand and, on the other hand, to unforeseen changes in the factual context in which those terms were negotiated, as well as difficult social issues about the most appropriate allocation of resources between competing needs.

Some of these issues are well beyond what can legitimately be left to the judicial or administrative processes. They involve deep-rooted social or philosophical conflict, and they need to be squarely confronted by legislatures as questions of public policy. Unfortunately, that has not happened. Nowhere in

North America do existing statutory provisions on pension plan surpluses, or governmentally supported proposals for legislative reform, deal head-on with the basic issues. Legislatures have backed away, enacting narrow and relatively uncontroversial rules designed to ensure only that enough surplus will be left untouched to protect nominal levels of promised benefits. The more difficult policy question of what should be done with surpluses above that level has been handed over, with little if any legislative guidance, to pensions commissions or pensions superintendents and ultimately to the courts. As we will see below, some Canadian courts, in attempting to do justice in the cases before them, have made admirable efforts to transcend the limitations of contract and trust law doctrine and to act on policy considerations neglected by the legislatures. However, the results have inevitably been haphazard and piecemeal.

After considering some of the factors which have caused pension plan surpluses and some others which may reduce or eliminate such surpluses in the future, I will move on in part 2 to outline the current Canadian law. To see what can be learned from American experience, part 3 will sketch out the current law in the United States and the divergent proposals which have been made for statutory reform in that country. In part 4 I will review some of the basic issues involved in the disposition of pension plan surpluses, and in part 5 I will venture some policy conclusions.

B Causes of Surpluses, and Possible Limitations on Their Continued Growth

The rapid growth of pension plan surpluses has been largely a phenomenon of the past five or six years. Some consideration of the reasons for it is a necessary part of any analysis of the strength of competing claims to those surpluses. Also relevant are the countervailing factors which might make the phenomenon a passing one.

There appear to be several reasons why surpluses have been accumulating in defined benefit pension plans in very recent years.

(i) The State of The Capital Market

Interest rates were very high in the early 1980's in both real and nominal terms and have remained high in real terms, resulting in high revenues for pension plans and relatively low purchase costs for the annuities required to meet plan liabilities to retirees. With the decline of nominal interest rates in the mid-1980's, equity values rose considerably, bringing remarkable further increases in pension plan income.

The results in the third quarter of 1985 provide a particularly dramatic example. Trusteed pension fund income increased by 22.3% in that quarter alone, and profit on the sale of securities expanded by 265%.[1] For the third quarter of 1986, trusteed pension funds in Canada had a total revenue of $4.9 billion and total expenditures of only $1.6 billion.[2] From 1975 to 1986, investment income rose from 33% to 48.6% of pension fund income, while employer contributions were dropping from 42% to 17.5% and employee contributions from 23.4% to 13.1%.[3]

(ii) Lower Levels of Wage Increases

> 'Stability in labour costs and prices has been one of the most significant developments in Canadian industrial relations recently. Wage settlements and rates of increase in various measures of earnings have declined to their lowest level in the past 25 years, raising the possibility of an enduring change in wage behaviour. The wage moderation has been further reinforced by wage cuts and freezes, growing emphasis on flexible compensation and employment arrangements, and by many cost-saving changes in employee benefit provisions.'[4]

Pension fund liabilities to retirees are often linked to wage levels and to the levels of other negotiated employment benefits. The relative stability of wages and benefits in very recent years has limited the amounts which have had to be paid out in the form of pensions.

(iii) Workforce Reductions and Changes in the Composition of the Workforce

Layoffs, permanent and temporary, large-scale and small-scale, have been abundant in recent years as a result of changing markets or changes in workplace organization, and '[r]ecent job creation activity has been ... concentrated largely in non-unionized, low paying industries and occupations favouring mostly women, part-time workers and the self-employed'.[5] This has served as a further brake on pension fund liabilities.

On the other hand, certain countervailing developments may limit the growth of pension fund surpluses in the years ahead. One is the aging of the labour force and the probability that its growth will slow down, which means that a higher proportion of employees will have high incomes, that more of them will be reaching retirement age, and that there will be a smaller proportion of younger employees to contribute to pension plans. Another such development is the advent of legislated requirements for improved pension benefits in many parts of Canada.[6] Yet another, more incalculable, is the possibility, as predicted by many investment analysts, that a stock market 'correction' will soon occur, wiping out at least part of the gains which have been the major cause of surpluses.

II CANADIAN LAW

A The Tangential Relevance of Tax Law

If pension plan documents made any mention at all of surpluses, at least until very recent years, it was done not to avoid disputes over surplus entitlement but to satisfy Revenue Canada that no funds in the plan were taxable. For some years after 1959, Revenue Canada would not approve the deduction by the employer of contributions to a pension plan unless it was clear that the employer could not use the plan as a temporary shelter for excessive contributions.[7] This led the drafters of plan documents and trust agreements to describe employer contributions as 'irrevocable' -- language which, if it is still

there, probably poses an insurmountable obstacle to employer recovery of surpluses.[8]

In the 1970's, Revenue Canada's concern apparently shifted from the use of pension funds as an employer tax shelter to their use as an employee tax shelter. The resulting Revenue Canada bulletin, the current version of which is Information Circular 72-13R of December 31, 1981, prohibits any payment of pension plan funds to an employee which would bring his/her pension benefits above a certain level.[9] It goes on expressly to permit, 'insofar as [Revenue Canada] is concerned', the refund to an employer, subject to tax in the employer's hands, of surplus in a defined benefit plan -- i.e., of the amount in the plan above what an actuary certifies is needed to meet liabilities over the following 24 months.[10]

Existing plan documentation is often worded with an eye to Information Circular 72-13R, and therefore contains language limiting payments to employees and giving employers a right to retrieve surpluses. However, the Ontario Court of Appeal has refused to give much weight to Revenue Canada's utterances, or even to pension plan amendments made in reaction to those utterances. The court has held that an amendment to a pension plan made for tax purposes will not override considerations of trust law which might favour employee claims to the surplus.[11] '...[T]ax considerations', the court has said, 'cannot alter the structure of the trust so as to deprive the beneficiaries of their residual rights'.[12]

B Trust Law

Let us take a step backward and ask what the basic thrust of trust law is in this area. Most relevant is the doctrine of the resulting trust. One situation in which a resulting trust arises is described by Professor D.M.W. Waters:

> 'If a settlor has failed to dispose of the whole beneficial interest, either because he has created only limited interests in the trust property or the trust objects do not exhaust the trust fund, the trustees hold on resulting trust for the settlor or his estate.'[13]

It can obviously be argued that in the case of a defined benefit pension plan, the trust objects are the payment of the defined benefits and nothing more, and that if those objects do not exhaust the pension fund, the trustees should be taken to hold the surplus on a resulting trust for the settlor employer. This argument was accepted in Re Canada Trust Co. and Cantol Ltd. by a British Columbia trial judge, who held that because all expressly promised benefits had been paid to all beneficiaries upon the termination of the plan, '[t]he purposes of this trust simply did not exhaust the fund and the outcome here, i.e., a surplus balance..., was not foreseen by the [employer]'.[14]

A very different approach was taken in the first of the recent Ontario cases on pension plan surpluses, Re King Seagrave Ltd. [hourly rated employees] and Canada Permanent Trust Co.[15] On the employer's bankruptcy and the pension plan's termination, all defined benefits required by the plan documents had been paid, and the employer claimed the surplus. The employees pointed to the provision in the trust document that '[n]o part of the principal or income of the fund shall in any event be used for, or diverted to, purposes other than those provided in the Plan', and to the fact that, in Pennell J.'s words,[16] the plan's explicit 'scheme of priorities in the event of termination makes no provision for the allocation of a surplus after the express benefits have been provided'. They argued that the plan's failure to make any express provision for reversion of surplus to the employer should be held to preclude any such reversion. The employer argued, on the other hand, that since the plan said nothing either way about surplus, a resulting trust should be held to arise in the employer's favour.

In reaching his decision, Pennell J. relied on what is now s. 14(6)(d) of the Pension Benefits Act Regulations,[17] which provides that 'no part of the assets of the plan shall revert to the benefit of the employer' upon termination unless 'the pension plan provides for such reversion to the employer'. He held that the word 'assets' in that clause should not be narrowly interpreted to exclude surplus assets, but should be 'freighted ... with the broad and liberal meaning imposed upon it by the purpose to safeguard employees' pension security'.[18] Because the plan in question did not provide for reversion of surplus assets to the employer, Pennell J. concluded, only the plan members were entitled to those assets. Crucial to the decision, it seems, was Pennell J.'s

willingness to infer and implement a legislative 'purpose to safeguard employees' pension security'.

Supportive though Pennell J.'s judgment was of the employee position where the plan documentation was silent on surplus disposition, it cannot be taken to support that position where the documentation is not silent. Pennell J. suggested that '[a] simple unilateral amendment [to the plan] in conformity with s. 34 of the Act[19] would have been the antidote' to the above mentioned provision of the regulations requiring express provision for reversion to the employer.

From subsequent cases, it appears that what Pennell J. referred to as 'the purpose to safeguard employees' pension security' has prevailed over his dictum that a unilateral employer amendment would easily tip the scales the other way. Where the plan documents, for tax reasons or otherwise, do not explicitly permit unilateral amendment by the plan sponsor, the Ontario courts have refused to allow it. This approach takes its point of departure from the principle of trust law that, in Professor Waters' words, '[a] settlor cannot revoke his trust unless he has expressly reserved the power to do so'.[20]

Thus, in Reevie v. Montreal Trust Company,[21] a defined benefit plan provided that all of the company's contributions to the plan were 'irrevocable' and could only be used to provide benefits to plan beneficiaries, and that if the company terminated the plan, its contributions would have to remain in the trust fund, which was to be distributed among the plan beneficiaries. A few months before terminating the plan, the employer amended the documentation to provide that upon termination and the payment of the promised benefits, '[a]ny assets still remaining shall be returned to the company'.[22]

Zuber J.A. held that this language did not adequately reserve to the employer the right to make such an amendment. To company counsel's argument that once the defined benefits had been paid, the plan members had no further right to the plan funds and any surplus must therefore revert to the employer, Zuber J.A. replied:

> 'While the plan continues to operate, a surplus will simply afford a cushion against years during which the fund performs poorly, or, it may lead to the reduction of future contributions. If the plan is discontinued, other considerations will arise. In this case, the plan itself provides that on discontinuance the surplus be dis-

> tributed to the members .... The defined benefits are the defined pension benefits and do not limit these specific additional rights.'[23]

Because the plan document in the Reevie case stated that employer contributions would be irrevocable and that the trust fund was to be distributed among the plan beneficiaries upon termination, the case perhaps did not involve a document which was wholly silent on surplus disposition. In addition, as Zuber J.A. said, 'there is an obvious difficulty in relying on cases dealing with pension plans that are not exactly the same'. Nonetheless, it would appear from Zuber J.A.'s judgment, as from that of Pennell J. in the King Seagrave [hourly rated employees] case, that a judicial presumption of sorts is arising in favour of employee rights in pension plan surpluses. The courts, it appears, will be reluctant to allow employer recovery of surplus funds unless the plan contains clear language permitting such recovery and unless the pedigree of that language can be traced back to the plan's original documentation, or at least as far back as the parties' last negotiation or renegotiation of the plan. In Professor Waters' words,

> 'Evidence introduced to support the resulting trust or to rebut it may only concern the intention of the parties at the date of the purchase or transfer. It is clearly not open to [the settlor] to support his claim of a resulting trust by showing that at some later date he intended a resulting trust.'[24]

Unilateral action in many different contexts by one side or the other-- more commonly the employer side -- has long been an obstacle to improved labour relations. It continues to be more of a problem in North America than in most other highly industrialized democratic countries. Pension plan amendments made by employers to give themselves access to surpluses are a clear manifestation of the phenomenon of unilateralism, and should be clearly prohibited by legislation.

C Canadian Statute Law

Statutory provisions on surplus reversion differ considerably among those Canadian jurisdictions which have pension benefits legislation, but there is a common thread of sorts.[25] Reversion of surplus to the employer, either from a terminated plan or an ongoing plan, seems to be generally permitted or at least tolerated, subject to varying limitations. Although those limitations may be quite restrictive, they are fragmentary, they fail to come to grips with the most basic policy issues, and they confer important discretionary power on supervisory authorities without adequately structuring that power.

One common limitation is the requirement that the existence of a surplus be attested to by an actuary[26] -- not a neutral actuary, but generally one engaged by the employer who sponsors the plan. Another is that the plan must provide that the employer is entitled to recover surplus.[27] This rule is highly arbitrary in its impact, given the fact that, as was pointed out above,[28] any language on the matter in the plan documents was very likely drafted with a view to keeping the tax collector at bay rather than with a view to establishing the respective rights of the parties.

Yet another common limitation is a requirement that a supervisory authority (a pensions commission or superintendent of pensions)[29] give consent to the proposed withdrawal of surplus. Even in new legislation in this area, the discretion given to such authorities is nowhere structured or channelled by clear statements of legislative policy on entitlement to or use of surpluses. An unfortunate example is provided by s. 80 of the new Ontario Pension Benefits Act, which contains a lot of detail designed to protect nominal benefits but contains little policy substance. Section 80 lists various situations in which the Pension Commission of Ontario may not consent to a surplus withdrawal by an employer, but it stops well short of enunciating any legislative policy on who should benefit from surpluses. The Commission is empowered by s. 80(6) to 'attach such conditions and limitations to its consent as the Commission considers necessary in the circumstances'. There is no guidance as to what the Commission should or should not consider 'necessary', and the criterion of 'necessity' gives the Commission a less clear mandate to develop substantive policy than the criterion of equitability, discussed below, in the Manitoba Act.

Administrative discretion serves a valid and socially important purpose when it gives a specialized tribunal the task of applying legislatively mandated principles and policies to a range of problems or conflicts too complex or too multi-faceted to be resolved sensitively and effectively by the courts. It does not serve any valid purpose when it is used as a substitute for legislative determination of the basic policies and principles that are to govern the problem area in question. Unfortunately, that is what has happened with respect to the regulation of surplus withdrawals. Legislatures have simply failed in their duty to face and decide the substantive policy question which, in our system of government, only the legislature can properly decide: the question of who <u>should</u> benefit from surplus funds in pension plans.

In Ontario, the Pensions Commission, stung by judicial criticism of decisions which it was expected to make out of whole cloth,[30] has announced that it will henceforth stand back and let the courts make any difficult decisions on surplus entitlement.[31] Even in areas where they have had far clearer policy guidance from the legislatures, the courts have often proven to be the wrong forum for resolving disputes which involve sharply conflicting social interests.

No Canadian jurisdiction has been wholly spared this legislative failure to deal squarely with the problem of pension surpluses. The only significant partial exception is provided by the Manitoba Pension Benefits Act,[32] as amended in 1986. Section 22(1.1) of the Manitoba Act[33] states that '[n]o funds, including surplus, in a pension plan shall be paid out of the plan to an employer, <u>unless the commission believes it equitable to do so</u>'. The key words, which I have underlined, do not provide very specific guidance. However, they do make it clear that before an employer can touch surplus funds, the Commission must be satisfied not merely that the nominal level of defined benefits is protected by an asset cushion of specified thickness and that the plan documentation allows the employer to take out surplus, but also that it is fair and just to allow any of the surplus to go to the employer.

The Manitoba provision at least gives the Commission an explicit mandate to consider what are proper uses of pension plan surpluses, and to develop principles in that regard for the guidance of the parties. It makes clear enough that however confident the actuarial assurances of benefit safety, and however accommodating the language of the plan documents, the Commission may not

approve a surplus withdrawal until it has addressed and affirmatively answered the question whether the particular withdrawal is morally and socially justified. The provision would be better if it provided explicit guidance on the policies to be considered in answering that question. As it stands, though, it represents something of an improvement over what is found in other Canadian pension benefit statutes.

It is instructive to note how the Pension Commission of Manitoba has proceeded with respect to this new statutory mandate. On April 1, 1987, the Commission circulated a proposal for guidelines on surplus withdrawals.[34] Para. 1 of the proposed guidelines reads as follows:

> '1. Consent: A surplus withdrawal application will not be considered equitable unless the plan members consent to the withdrawal. Such consent shall be in writing, and presented to the Pension Commission. A prerequisite to this consent is disclosure to the members of the financial and actuarial information relevant to the surplus withdrawal.'[35]

This reflects a strongly consent-based reading of s. 22(1.1) of the Act. The members of the plan would have the exclusive right in each case to decide whether it was 'equitable' to allow the employer to take out surplus funds. Stated as broadly as it is in para. 1, this approach would virtually amount to recognizing the plan members as full owners of any surplus.[36]

The remaining three paragraphs of the guidelines would appear to reinforce the employee rights recognized in para. 1, by in effect preventing employees from consenting to employer surplus withdrawals in certain circumstances. Para. 3 would prohibit surplus withdrawals from an ongoing plan unless a cushion of surplus funds was left in the plan.[37] Para. 4 would prohibit surplus withdrawals unless the current wording of the particular plan explicitly allowed them, and unless the past provisions of the plan either explicitly allowed them or explicitly allowed the employer to amend the provision in question.[38]

Para. 2 is very interesting. It provides as follows:

> '2. Benefit Improvements: A surplus withdrawal will not be considered equitable unless the accrued benefits of the plan members have been increased to offset the effect of past inflation. Other benefit improvements, of equal cost, would also be accepted.'

This seems to make it clear that whether or not employee consent was obtained, no withdrawal would be permitted unless some sort of inflation indexing (or the equivalent) was provided for benefits which had already accrued. The Commission would not deem a withdrawal to be equitable, para. 2 appears to say, unless the employer had first provided the quid pro quo of inflation protection.[39]

III AMERICAN LAW ON ENTITLEMENT TO PENSION PLAN SURPLUSES

A ERISA: Termination or Nothing

In 1974, the United States Congress enacted the Employee Retirement Income Security Act (ERISA).[40] A major purpose of ERISA was to protect employees against underfunded pension plans.[41] To that end, s. 403(c)(1) provides that, subject to certain exceptions, 'the assets of a plan shall never inure to the benefit of any employer and shall be held for the exclusive purposes of providing benefits to participants in the plan and their beneficiaries and defraying reasonable expenses of administering the plan.' This basic principle applies to all ongoing pension plans. To this day, American employers have virtually no right to withdraw surpluses from ongoing plans, whatever the plan documents might say.[42]

Although ERISA prohibits employers from touching assets in ongoing plans, it has anomalously done little to prevent them from gaining access to surpluses through a more frontal attack -- i.e., by unilaterally terminating a pension plan when a surplus has accumulated. Generally speaking, a company can terminate its pension plan whenever it wishes, pay off all liabilities which have accrued to date under the plan, and take out any surplus that is left. In terms somewhat similar to s. 14(6) of the Ontario Pension Benefits Act Regulations,[43] s. 4044(d)(1) of ERISA[44] states:

> '(1) Any residual assets of a single-employer plan may be distributed to the employer if--
> (A) all liabilities of the plan to participants and their beneficiaries have been satisfied,

> (B) the distribution does not contravene any provision of law, and
>
> (C) the plan provides for such a distribution in these circumstances.'[45]

Under Ontario case law, the last proviso just quoted -- that the plan documents must state that any surplus goes to the employer -- would probably not be interpreted to allow an employer to amend a plan along those lines just before embarking upon a termination.[46] The situation is apparently quite different in the United States. Citing extensive recent judicial authority, Professor Norman Stein observes:

> '...employers generally reserve the right to amend the pension plans they sponsor for their employees. Acting under such plan authority, some employers have amended their plans to provide that on termination, surplus assets would revert to the employer. Courts have approved such amendments, even in cases where the amendment has been made only shortly before the plan was terminated.'[47]

However, unpalatable labour relations and public relations consequences often await an employer who simply abolishes its pension plan and leaves its employees with no vehicle for the continued accumulation of pension credits. Because ERISA makes the termination of a plan a prerequisite to employer access to the plan surplus, employers who want to drain off the surplus without wholly eliminating their pension plans have resorted to what are really sham terminations -- or, as they are sometimes euphemistically called, formal rather than substantive terminations. Such devices enable an employer to shut down a surplus-bearing plan, retrieve the surplus for itself, and set up a new, leaner plan.

The best known of those devices are the 'spin-off termination' and the 'termination-reestablishment'. To effect a spin-off termination, the employer splits the plan into two sub-plans, one for current employees and one for those already retired. Enough assets are allocated to the current employees' sub-plan to cover their pension benefits accrued to date, and that sub-plan is erected as the employer's pension plan. The rest of the assets, including the surplus, are put into the retired employees' sub-plan. That sub-plan is then

terminated. The employer uses some of the assets from it to buy annuities to cover the pension entitlement of the retired employees, and pockets the surplus. The termination-reestablishment method involves the employer's terminating the entire existing plan, making provision (often through annuities) to cover accrued benefits, keeping the surplus, and setting up a new plan which may or may not be similar to the old one. One writer has said, with excessive caution, 'Arguably, these transactions accomplish indirectly, in two steps, what could not have been accomplished directly in one step.'[48]

Employees do not always lose pension benefits as a result of the employer use of such devices. However, the new or modified plans with which the employees are left are by their very nature less well funded than the predecessor plans, because the cushion of surplus assets has been taken away. The plans will thus be less able to provide enhanced benefits in the future or to weather any sharp drop in the value of their investment portfolios. In addition, if a new plan does not give credit for service during the lifetime of the old plan but merely starts the clock again, the total value of the employee's benefits at retirement date under both the old and new plans may be much less than if he/she had continued to accumulate credits under the old plan until retirement. As one writer puts it,

> 'Upon termination, the firm owes workers pension payments calculated at the termination date. But since these payments are fixed in nominal dollars but are payable many years in the future (usually when workers turn age 65), the real value of these benefits is seriously eroded.... The difference between nominal and real pension benefits can be very large.'[49]

On May 23, 1984, Joint Implementation Guidelines on Asset Reversions (often called the Administration guidelines, because they embodied what were at that time the policies of the Reagan Administration) were adopted by the Pension Benefit Guaranty Corporation, the Department of Labour and the Internal Revenue Service.[50] The Administration guidelines impose certain funding requirements on new plans which rise out of the ashes of terminated plans, they provide for full vesting of the benefit rights of employees in terminated defined benefit plans, and they require that such vested benefits be protected through the purchase of annuity contracts for the beneficiaries.

They also provide that employers who recover surplus assets upon a spin-off termination or a termination-reestablishment must wait fifteen years before using either device again. However, they do not require that past service credit be given upon the establishment of a new plan, and they have been strongly criticized for this shortcoming.[51]

More generally, the Administration guidelines have been characterized by Congressman Edward R. Roybal, a leading Congressional critic of existing law on pension plan asset reversion, as 'not targeted to stop or resist pension raids.'[52] 'Rather', Congressman Roybal has argued, 'the guidelines offer new opportunities for corporate sponsors to accomplish plan terminations and will allow new and questionable techniques to be used to accomplish those raids'.[53] The succession of legislative proposals introduced by Congressman Roybal in an effort to turn the law around will be looked at below.

B Recommendations of The Task Force on Terminations, 1986

In December 1985, the ERISA Advisory Council[54] set up a Task Force on Terminations, to 'examine the effects on benefit security of plan terminations involving asset reversions', to 'determine whether there are adverse effects that cannot be dealt with satisfactorily within the context of existing law', and to make recommendations for change.[55] The Task Force reported in June 1986.

In the Task Force's view, an employer should not have to terminate a pension plan in order to get access to the plan's surplus. Termination is 'inefficient' because of 'the often substantial transactional costs incurred in terminating a plan' and, more important, because of 'the potential harm to participants and beneficiaries as a result of termination-reversion under the present system'.[56] Some of the types of potential harm to which the Task Force referred have been mentioned above, as consequences of the spin-off termination or the termination-reestablishment.

Rather than having to terminate the plan as a prelude to recovering surplus funds, an employer, according to the Task Force, should have access to those funds while the plan is ongoing, subject to safeguards designed to protect

the security of benefits. The Task Force proposed a 'five-point program' to that end:[57]

1. An identified, publicly accessible interest rate should be used to calculate plan liabilities: i.e., the Pension Benefit Guaranty Corporation interest rate.

2. Withdrawals should be limited to any portion of the surplus which exceeds 120% of the plan's liabilities.

> 'Use of the 120% figure produces amounts similar to those available when plan liabilities are determined on an ongoing (or projected) basis. As such, this figure represents, in the Task Force's view, a good balance between the plan sponsor's need to gain access to competitive amounts through withdrawal and the participants' need for a funding cushion.'[58]

3. A surcharge should be placed on amounts taken from ongoing plans, either as an excise tax or as a sum to be set aside to improve benefits or fund future cost of living indexation. To discourage terminations, a larger surcharge should be levied on amounts recovered from terminated plans.

4. To prevent a pension plan from being used 'as an open checking account', withdrawals of surplus should be allowed only at widely spaced intervals. Those intervals should be somewhere between five and fifteen years in length.

5. '...the Task Force recommends treating withdrawn amounts as experience losses subject to ten-year amortization in recognition of the ongoing nature of benefits accruals under a withdrawal system'.

The last of these five points is of particular interest. Its thrust appears to be that the employer would only be allowed to borrow from the plan surplus, and would have to pay back any such loan over a ten-year period.[59] The plan and its beneficiaries would thus retain ownership of the surplus, though some of the surplus might have to be lent to the employer from time to time.[60]

Allowing employers to borrow surplus funds from ongoing plans would be in line with the analysis and recommendations of an economist with the United States Department of Labour, Richard A. Ippolito.[61] On the basis of a study of plan terminations from 1950 to 1983, Mr. Ippolito has observed:

> '...available data appear to contradict the notion that terminations are effected for the purpose of imposing losses on workers and granting gains to stockholders. Instead, the findings tend to support the notion that terminations reflect firms' intentions to, in effect, borrow funds from the pension plan.[62]

'Forcing firms to terminate to acquire a loan', Mr. Ippolito concluded, 'represents a wasteful public policy and may inadvertently lead to increased capital losses for workers.'[63] Instead, he suggests, firms should be allowed to borrow openly and directly, but should be assessed a special 'reversion tax' to make up for the fact that the surplus had accumulated on a tax-free basis.[64]

The recommendations of the Termination Task Force were agreed with almost entirely by the ERISA Advisory Council in the latter's report to the Secretary of Labour.[65]

C The Reversion Policy Study Group

The Reversion Policy Study Group is a private, ad hoc group of retirees, former public servants, union officers, lawyers and scholars, who came together out of concern that the Task Force on Terminations was made up almost wholly of people whose interests were aligned with those of employers. The Study Group prepared a detailed report strongly criticizing the Task Force's recommendations, which it described as 'fundamentally flawed in concept'.

> '...the Task Force's approach totally ignores a simple fact of pension economics: reversions of plan assets in themselves thwart legitimate benefit expectations of workers and retirees. Reversions are the problem, not the solution.'[66]

Allowing employers to withdraw surpluses from continuing plans, the Study Group predicted, would encourage rather than discourage the running down of pension plan assets. Whether those assets were run down through termination or through withdrawal from an ongoing plan, the result would be a reduction in the plan's capacity to meet the legitimate expectation of employees that they would receive real rather than nominal benefits. To protect such expectations, the Study Group proposed that the meaning of 'residual assets'

under ERISA s. 4044(d)(1)[67] be modified to require that enough be left in the plan to cover two types of benefit adjustments which are not now mandated by the statute but which should have to be paid to beneficiaries in the event of a plan termination or left in the ongoing plan in the event of a surplus withdrawal:

> '-- An adjustment to the benefits earned by active participants to reflect increases in compensation that are reasonably projected to occur during participants' working lives; and
> -- An adjustment to the benefits earned by retired participants to reflect that surpluses generally include earnings on contributions made during retirees' periods of active plan participation.[68]

D The Reagan Administration Proposal, February 1987

The Reagan Administration recently made a proposal to Congress for amendments to ERISA which purport, in President Reagan's words, 'to enhance the effectiveness of the private pension system in providing retirement security to American workers'.[69] The proposal departs significantly from the recommendations of the Task Force on Terminations and the ERISA Advisory Council.

The Administration's proposal would allow employers to withdraw assets from ongoing pension plans, subject to certain safeguards. Chief among those safeguards is the requirement of a 'minimum benefit security level' i.e., the requirement that a cushion of assets be left in the plan, and in other plans of the employer and related employers.

> 'The 'minimum benefit security level' would be equal to the greater of (A) the termination liability of the plan(s) plus 100% of the excess of the full funding liability of the plan(s) ... over the termination liability of the plan(s), or (B) 125% of the termination liability of the plan(s).'[70]

With respect to termination of pension plans, the thrust of the Administration's proposal is to limit the amount of surplus that the employer could recover upon termination (the 'permissible reversion amount') to the amount that could have been withdrawn from the plan if it had been continued. An employer who recovers assets upon the termination of an overfunded defined

benefit plan would not be allowed to set up another plan for the same employees for five years.[71] Thus, although employers would still be allowed to terminate overfunded plans, they could not attempt to damp down unfavourable employee or public reaction by immediately setting up another plan for the affected employees.

The Administration proposal makes no mention of the Task Force's and Advisory Council's recommendation that withdrawals be treated as experience deficiencies subject to amortization by the employer over a ten-year period. It would seem, therefore, that withdrawals would not have to be repaid.

The proposal also contains certain limitations, paralleling to some extent those recommended by the Task Force, on the frequency with which an employer may recover surplus assets through either a withdrawal from an ongoing plan or a reversion from a terminated plan. Roughly speaking, there would have to be a ten-year wait between recoveries of all of the surplus assets in a plan, and proportionately shorter waits between partial recoveries of surplus. No surplus could be taken out until a plan had been in effect for ten years. All recoveries, whether through a withdrawal or reversion, would attract a 10% excise and income tax.[72]

E The Roybal Bills, 1984 to 1987

Congressman Edward R. Roybal, mentioned above, who is a Democratic member of the House of Representatives from California and the Chairman of the House Select Committee on Aging, has been the most active Congressional proponent of legislative reform with respect to pension plan surpluses. Since 1984, he has introduced a number of bills with a view to establishing, in his words, 'a federal policy which will insure that workers and retirees are effectively protected from the loss of their pension benefits due to overfunded plan terminations which are initiated so that employers will recover excess assets'.[73] Such assets, he argues, 'are not really excess at all but rather represent benefits which would otherwise be paid to workers....'.[74]

It is very interesting to observe the changing thrust of Congressman Roybal's legislative proposals. His theoretical position has become clearer over

time, and the legislative remedies which he has put before Congress have become simpler, more direct, and reflective of a greater sense of urgency. In October 1984, he pointed out that '[i]n less than five years employer pension raids have netted more than $2.7 billion for employers'.[75] By the time he introduced his most recent bill on April 7, 1987, he was able to quote Administration figures indicating that from 1980 to 1985, employers had collected more than $11.85 billion from terminations, and that the number of terminations had jumped from nine in 1980 to 525 in 1985.[76]

Congressman Roybal's first two bills -- the Plan Termination and Reversion Control Act of 1984,[77] and one of the same name in 1985[78] -- were quite complex, and had a few secondary features in common with the Termination Task Force recommendations and with the recent Reagan Administration proposals. For example, they would have imposed a 10% excise tax on sums recovered by the employer to counteract the tax shelter effect of pension plans, and they would have required a waiting period before a new plan could be set up after a termination. However, they would have given employees far greater rights in pension plan surpluses. All surplus funds, including the portion attributable to employer contributions, would have gone to employees (those already retired and those within five years of retirement) unless the termination was due to a 'business necessity' on the employer's part. 'Business necessity' was limited to 'bankruptcy, insolvency or other business hardship'[79] -- in other words, to survival needs of the employer.

The reasoning in support of the business necessity test appears to have been rooted in the relatively uncontroversial assumption that employer access to surpluses inevitably affects the security of employee pension benefits, and in the value judgment that such security can justifiably be impaired only in extreme circumstances. Most pension plan terminations, Congressman Roybal asserted, had not been compelled by circumstances of that sort.

> 'The majority of these terminations have been taken not because of a financial necessity of the employer but, rather, because the employer desired to obtain a reversion to accomplish some business purpose which might include preventing or sponsoring a takeover, improving the financial statements of that employer, or using the reversion to finance the acquisition of employer stock.'[80]

On July 30, 1985, Congressman Roybal expressed dismay that the Administration had continued to process large numbers of termination requests while his earlier bill was awaiting legislative committee consideration. He also voiced the concern that the 1984 Joint Administration Guidelines[81] were merely serving to facilitate such requests. In an attempt to put a halt to the process, he introduced a further bill which would have imposed a moratorium on terminations for an indefinite period.[82] 'The Congress', he argued, 'must not allow pension plans to become a sacrificial lamb on the altar of corporate expediency.'[83]

Most recently, on April 7, 1987, Congressman Roybal, arguing that the availability of termination for surplus reversion 'has created an irresistible temptation for some employers to sacrifice the long-term retirement income security of their plan participants for short-term gain',[84] introduced a short bill called the Pension Plan Assets Protection Act of 1987.[85] In his words, this bill would simply require that 'following any defined pension plan [sic] termination, all residual assets be distributed to plan participants and beneficiaries'.

The arguments advanced by Congressman Roybal in support of this more fundamental reform are worth setting out at some length.

> 'The Pension Plan Assets Protection Act does nothing more than recognize that the favorable tax treatment accorded defined benefit pension plans can only be justified from a policy perspective if they are treated as irrevocable trusts. Workers forego current wages in exchange for plan contributions eventually repaid in the form of pension annuities. This bill would simply prohibit employers from reclaiming funds otherwise contributed to fund current and future pension benefits.
>
> By introducing a bill which is comparatively uncomplicated compared to its predecessors, I am not suggesting that this issue is without its own complexities. I recognize that additional provisions may be necessary to accommodate the pragmatic needs of pension plan sponsors. However, in my opinion the starting point for any legislative remedy must be the recognition of the expectation interests of plan participants and beneficiaries.
>
> Discussion of the bill's effect
>
> Critics of this approach argue that treating pension plans as irrevocable trusts would cause employers to underfund their pension plans, terminate them completely, or fail to adopt new defined benefit retirement plans. These arguments grossly overstate the probable impact of the bill's provisions.
>
> First, employers reluctant to relinquish the windfall from ERISA's loophole permitting terminations for reversion suggest they will underfund their plans if such legislation were enacted.

> However, such critics seem to ignore the fact that ERISA subjects pension plan sponsors to strict minimum funding rules which would prevent plan sponsors from intentionally underfunding their plans.
>
> Second, plan sponsors adopt and maintain plans for a broad variety of reasons, principally as a means of managing their work forces and encouraging worker loyalty. In exchange for this powerful work force management tool employers voluntarily assume financial commitments to the pension trust. The potential to terminate a plan for reversion is not a significant economic incentive to adopt a plan.[86]

In concluding this brief review of American reform initiatives, it should again be acknowledged that much of the energy in those initiatives has gone toward developing what we already have to some extent in Ontario: a device for enabling surplus assets to be withdrawn from a pension plan by the employer without terminating the plan. However, there appears to be no broader agreement in the United States than in Ontario on two more fundamental issues: is it justifiable on principle to allow those assets to be used by the employer for purposes other than the provision and enhancement of pension benefits, and if it is, what protective measures are called for? It is very significant that the member of Congress who has pressed most persistently for legislative reform in the United States has recently come around to the position that the point of departure of any reform should be the recognition of an overriding claim to pension plan surpluses on the part of plan beneficiaries.

IV SOME HARD QUESTIONS ABOUT PENSION PLAN SURPLUSES

Now that I have looked at the causes of surplus, at the current approach of the law in Canada and the United States and at some reform initiatives that have been taken, I will review certain of the hard questions about surplus disposition as a prelude to putting forth some policy conclusions

A What About Freedom of Contract?

In a recent brief on pension plan surpluses, the Canadian Institute of Actuaries has argued as follows:

> 'In the past regulators [of pension plans] have tended to view their role essentially as one of ensuring that the funding strategy met legislated guidelines to ensure the solvency of the plan.
>
> ...Given that the question of surplus ownership relates to the contract between the plan sponsor and the employees, it is our view that regulators should not be drawn further into the problem....
>
> The role of the regulator, in our view, is to ensure that the funding of the pension plan meets appropriate tests of solvency. The question of surplus ownership is clearly outside this mandate and relates to the contract between the plan sponsor and the employees. From this we conclude that it would not be appropriate that further regulation or legislation be used to settle the ownership question.'[87]

Freedom of contract has long been recognized as inadequate for the regulation of many aspects of the employer-employee relationship, and has thus been supplanted in large part by a body of legislative and administrative principles and rules. There is no reason to treat freedom of contract as more sacrosanct in the area of pensions than in other areas of employment relations. The Canadian Labour Congress is right in responding as follows to the argument of the Canadian Institute of Actuaries:

> '...the fact that pension plans involve contractual relationships does not give them priority over considerations of public policy nor does it put them beyond the reach of public policy.'[88]

B Do Employers Bear All of The Risk Under Defined Benefit Plans?

Although there are many kinds of defined benefit pension plans, they all involve a promise by the sponsoring employer to provide employees with a defined level of pension benefits as partial consideration for services rendered by those employees. Nothing in the contract requires employees to take less than

the promised benefits if the plan's investments do poorly or if its funding assumptions otherwise turn out to be wrong. If, as was not uncommon in the late 1970's, a defined benefit pension plan runs a loss, it is the employer and not the employees who have to bail it out. Therefore, the employer argument runs, because employees bear none of the ever-present risk of investment losses, they can have no claim to investment surpluses -- or at least to those portions attributable to employer contributions.

The employee response is that by no means all of the risk is taken by the employer. True, the employee argument acknowledges, it is the employer who in the first instance will have to pay more into the plan in the event of an experience deficiency -- i.e., if it appears that the funds in the plan will not be enough to cover the nominal level of promised benefits. However, that likelihood is minimized by cautious actuarial practices, and by the professional investment advice to which employers have ready access. In contrast, the argument runs, the employees bear the different and in fact much greater risk that the real value of the promised benefits will decline substantially between the time the promise is made and the time the benefits are paid to employees. The market factors (principally inflation) which are largely responsible for surpluses are essentially the same factors which erode the real value of promised pension benefits before they are paid.

> '...a nominal deferred annuity -- which is what the worker has accrued at each point in time [under a defined benefit plan] (and what he would receive if he were terminated) -- has the investment characteristics of a very long-term bond. As such, at each point in time, his accrued benefit is a very risky investment in a world of uncertain inflation and volatile inflation expectations.'[89]

Many retirees have been impoverished by inflation even though they have received every cent of the nominal pensions promised by their defined benefit plans, and it is unfair, the argument concludes, to allow employers to profit from surpluses which are partly a product of the same inflationary factors that have devalued employee benefits.

Furthermore, the employee argument asserts, the employer's responsibility to meet experience deficiencies is not as onerous as it might sound. Employers need not come up immediately with all of the funds needed to cover a deficiency,

but may amortize it over a five-year period.[90] Also, according to union representatives, when experience deficiencies have occurred in the past, at least where there is collective bargaining, employers have not hesitated to raise the matter in the next round of bargaining and to insist that the amounts which they have paid out to meet a deficiency be taken into account in settling the terms of the new collective agreement. That point is closely related to the next question to be addressed: is it the level of pension benefits or the level of pension costs that the parties really negotiate?

C. What Do The Parties Bargain Over: Pension Benefits or Pension Costs?

Employers claim that what they negotiate with their employees, in the case of a defined benefit plan, is not the amount of money which the employer will pay into the plan (the cost of the pensions), but rather the amount of benefits which will be paid out. On this reasoning, how much or how little the employer puts into the plan is entirely the employer's affair, as long as enough comes out at the other end to provide the employees with the promised level of benefits.

The employee response is that even if it is only the level of benefits that is agreed to in writing, what employers and employees actually bargain over, implicitly if not explicitly, is the cost of employer contributions to the plan. Although that is particularly true for unionized employees, the argument runs, it is also true for unorganized employees. When an employer agrees to fund a certain level of pension benefits, what it is really agreeing to do is to divert from employee wages the amount which is thought at the time to be necessary to pay for that level of benefits. Because the employees, through foregone wages, have paid for the full amount of employer contributions, they are entitled to whatever those contributions have produced.

What is still the clearest available account of the process of union-employer bargaining over pensions was offered in 1964 by an American scholar, Professor Merton C. Bernstein:

> 'Unions and employers often are quite specific in equating employer pension plan contributions with employee wage compensation. Unions demand increases of X cents per hour in money wages and Y cents per hour in fringe benefits, including pension plan contributions. Employers respond with counter offers in precisely the same terms. Fact-finding boards report the bargaining proposals of both in the same fashion. The bargaining of the large unions and large employers is most explicit on this point because both sides have the technical assistance to translate fringe costs, including pension plan contributions, into costs per hour. This 'translation' is necessary because many plans, such as those in the steel and automobile industry, are expressed in terms of benefit scales and the costs must be derived actuarially.
>
> The parties bargain on all labor compensation elements in terms of the total cost of a package which is divided among direct money wages and several fringe items. Considerations of equity and strategy shape the parties' demands, and they agree upon division of the package among the various elements. One seasoned negotiator [Arthur Goldberg, General Council of the CIO at the time] described the process in this fashion:
>
>> The union and management come to the bargaining table with some appraisal of how much money there is in the 'kitty' for an increase. The appraisals are, naturally, different. But it is the total cost of improvements which provides the framework within which the union and management bargain. If the 5 cents, for example, does not go into a health fund, it can go into a wage increase or two extra holidays or double time for overtime on Saturdays. That is what collective bargaining is all about.
>
> ...Of course, smaller employers and unions are less well equipped to translate pension benefit schedules into cost per hour per employee. But, although they must do the job only approximately, or even leave the job of translation undone, the understanding is that pension costs (contributions) are part of the wage bill which are given and taken in lieu of direct cash wages or other items of compensation.'[91]

Applying Professor Bernstein's analysis to the specific question of entitlement to surplus funds, Professor Stein has recently said:

> '...in substance, the employer and union are negotiating about what goes into the plan at least as much as they are negotiating over what will come out. And if the union and employer turn out to have been mistaken about a benefit's cost, the employer claim to any resulting surplus hardly seems stronger than would a claim to cash wages actually paid to employees during the term of a collective bargaining agreement negotiated under a mistaken belief that inflation would continue apace during the agreement's duration.

> ...the analysis can be extended even to non-bargained-for plans, since all plans exist in a common economy and might be presumed to create similar types of benefit expectations in employees. But here the considerations are more complex and the employer's position more supportable, for at least two reasons. One, the above analysis is based on the reasonable bargaining expectations of union and employer, and not only on the expectations of individual employees. And two, an employer may have a freer hand in selecting actuarial methods and modulating contribution rates when the plan is not negotiated.[92]

D Are Employer Contributions To Pension Plans A Form of Deferred Compensation For Employees?

From the discussion above, it seems clear that even if benefits provided by employer-sponsored pension plans could at one time rightly be considered as ex gratia payments, to be granted or not at the discretion of employers, they can no longer be seen in that way.[93] Whatever the type of pension plan involved, pension benefits are now widely recognized as deferred compensation, earned by employees in lieu of additional wages. The advent of legislative reforms providing for early vesting and ready portability of pension rights is putting an end to the use of pensions as a means of holding onto employees, thus removing some of the last consequences of the concept of pensions as gratuities.[94]

For our purposes, however, the issue is not whether pension benefits are deferred wages, but whether contributions made by employers to fund defined pension benefits are deferred wages. Do employers and employees implicitly agree that employees will receive all of the fruits of employer contributions, or that they will receive only the defined benefits which have been expressly promised to them?

Insofar as it relates to the expectations of the parties and to tradeoffs made between them, this is essentially another way of putting the question already discussed above -- the question whether the parties bargain costs or benefits when they negotiate pensions. If they bargain costs, the amounts which they agree to put toward pensions are in effect deferred wages. If they bargain benefits and not costs, it would follow that it is the promised pension

benefits that are the deferred wages, rather than the contributions which pay for those benefits.

V SOME POLICY CONCLUSIONS

Where employees or their bargaining agent expressly agree to accept a specified level of pension benefits and to leave to the employer the responsibility of managing the pension fund to produce those benefits, there is obviously a good deal of force in the employer argument that those employees cannot have their cake and eat it too -- that they have surrendered their claim to any surpluses which might accumulate in the fund as a result of the employer's stewardship.[95] However, as a matter of public policy and labour relations policy, I do not think that argument should be accepted. My assessment of the employer and employee positions on the questions discussed above leads to the conclusion that the more justified policy approach is to recognize the primacy of employee rights in pension plan surpluses.

As to whether it is pension benefits or pension costs that the parties really bargain over, the more convincing view is that even if the particular parties bargain <u>explicitly</u> over benefit levels alone, they bargain <u>implicitly</u> over cost levels.[96] That is true whether a union is on the scene or not. It follows that the pension plan contributions made by employers, and their administrative and entrepreneurial contributions to the management of pension funds, should be treated as part of employee compensation.

The question of risk is even more difficult, in part because the risks which employers and employees take on under defined benefit plans are so different and so hard to compare. Employers take most of the risk that the pension fund will not have enough in it to pay the promised level of nominal benefits when they fall due. Employee risk in that regard is largely limited to situations of employer bankruptcy. On the other hand, employees face the very substantial risk that the real value of the benefits promised to them will have declined greatly by the time those benefits are paid.

Although many defined benefit plans are structured to provide some protection against inflation, many are not, and most employees and retirees simply

do not have the bargaining leverage to insist on substantial periodic improvements to their pension entitlements. Nor do most employees have the resources to amass large retirement savings on their own. Even the average industrial wage, let alone the much lower earnings on which a large proportion of the workforce must get by, seldom permits the accumulation of much in the way of capital reserves.

Employers are given a tax exemption for pension plan contributions, and funds in pension plans are allowed to accumulate tax-free. The reason for those tax concessions is to encourage the setting aside of pension funds for plan beneficiaries and to enable those funds to grow to a level at which they can provide adequate retirement income security for the beneficiaries. The object is not to enable employers to accumulate assets for their own use.

Another factor which points in the same direction, and which should be a matter of major policy concern, is the contribution of workforce reductions (i.e., layoffs) to the growth of pension plan surpluses.[97] Many North American employers use layoffs as their first line of response to a downturn in business, treating workers as economic shock absorbers and giving the return on capital a higher priority than the job security of employees. Permanent layoffs of employees without vested pension rights bring a particularly significant reduction in pension fund liabilities, but other layoffs also lead to some reduction in those liabilities. If employers are allowed to profit from pension plan surpluses generated by layoffs, they will have an additional incentive to downgrade employee job security, and for reasons having nothing to do with efficiency or flexibility. Employees on long-term or frequent layoff are often among the most disadvantaged people in our society. If their misfortune has contributed to the growth of pension plan surpluses, they have a pressing claim to the use of those surpluses to help alleviate their situation.

A The Demise of Defined Benefit Plans?

I cannot pretend to offer a well-informed assessment of the argument that restricting employer access to pension plan surpluses would encourage many employers to move away from defined benefit plans and toward defined contri-

bution plans, and that such a move would impair employee retirement income security. However, two points are worth noting. One is that widespread employer interest in retrieving pension plan surpluses is of recent origin, as indeed are most of the large surpluses themselves, and that a great many employers established and maintained defined benefit plans over a long period when surplus retrieval was simply not on their minds. A principal reason, no doubt, was that defined benefit plans were seen as better suited to the needs and circumstances of most employees and therefore as being more attractive to them.

The second point is that defined contribution plans perhaps need not be riskier than defined benefit plans, in light of the availability of many very secure (if relatively low-yielding) investment vehicles.[98] Defined benefit plans with reasonably high minimum benefit guarantees have been devised for some categories of higher-status employees. Why could they not be developed for larger numbers?

I remain unconvinced either that many employers would move away from the defined benefit format if any hope of surplus retrieval was denied to them or that the security of employee pensions would necessarily suffer even if such a move occurred.

B Borrowing of Surplus Funds?

The report of the Termination Task Force in the United States, outlined in part 3 of this paper, recommended that employers be given access to surpluses above a certain level in ongoing pension plans, but that any withdrawals of surplus funds would have to be paid back over a ten-year period.[99] None of the legislative proposals put before Congress has taken up this recommendation, but it may be worthy of consideration.

I can only point out some of the questions raised by the idea of loans of surplus to employers, without purporting to provide answers. Should such loans be available at less than market rates of interest? Should there be some sort of 'business nècessity' criterion, akin to the business necessity test for surplus withdrawals proposed in certain of Congressman Roybal's bills?[100] Should

employers be allowed to borrow for purposes for which loans could not be obtained on the capital market? Each of those possibilities would pose obvious risks to the security of pension plan funds, but would they be as great as the risks posed by non-repayable withdrawals?

C Are Contribution Holidays Different?

In the recent Ontario Hydro case,[101] the Ontario Divisional Court held that Ontario Hydro was entitled to make no contributions at all to its employee pension plan for 1986. Section 20(4) of Ontario Hydro's special governing statute, the Power Corporation Act,[102] required Ontario Hydro to contribute 'the difference between the amount of the contributions of the employees and the amount of the cost of the benefits as determined by actuarial valuations'. The corporation's actuaries certified that because there was a large surplus in the plan, the 'difference' referred to in s. 20(4) was zero for 1986. That was the basis of the majority judgment allowing Ontario Hydro to take a contribution holiday.

One of the majority judges, McKinlay J., said:

> 'I do not consider the question of ownership of the surplus to be relevant, but in any event, there is nothing in the [Power Corporation Act] to indicate ownership of the surplus in either party.'[103]

However, the other majority judge, Galligan J., held:

> 'Since generally accepted actuarial principles authorize the taking into account of the surplus, and since the statute does not prohibit it, I am of the view that because the actuarial determination required by s. 20(4) concluded that in 1986 the employer need make no contribution, there is no legal obligation upon it to make one.'[104]

This approach seems to give actuaries, by default and without any clear legislative mandate, the authority to conclude that an employer has a right of access to a surplus. Reid J. said in his dissent,

> 'With respect, the difference between claiming ownership of the fund and using the fund for its own benefit is not apparent to me.... I can see no difference between Hydro giving itself an accounting credit in the fashion described and removing the equivalent amount from the surplus without the consent of the Pension Commission of Ontario in order to meet its required contribution.'[105]

The Canadian Institute of Actuaries itself has expressed the opinion that '[t]he reduction or suppression of payments of employer contributions into a plan until any surplus is eliminated ... has the same effect in the long run as the withdrawal of surplus'.[106] In principle, employer contribution holidays are indeed indistinguishable from an employer withdrawal of surplus assets. In either case, the surplus is run down by a certain sum, and the employer has that sum available for other purposes of its own.

However, the practical and symbolic effects of a contribution holiday may be different, and may render it somewhat less invasive of legitimate employee interests. One factor is that all funds paid into the pension plan stay there, at least notionally, and are used to fund employee benefits rather than for other purposes. More important is the point made by the Canadian Labour Congress in its response to the Canadian Institute of Actuaries' brief:

> 'What is at stake in the difference between these alternative dispositions of surplus is the speed with which the surpluses disappear. This is no small issue as the slower dissipation of a surplus affords the plan members some opportunity to apply the remaining surplus to benefit improvements. It should be noted that as a practical matter, the existence of a surplus is critically important in facilitating the negotiation of past service improvements to a pension plan.'[107]

Allowing employers to take contribution holidays in certain circumstances deserves consideration as a compromise resolution of the conundrum of pension surplus entitlement. It may be a justifiable <u>quid pro quo</u> for a statutory requirement that employers provide the beneficiaries of their pension plans with protection against the erosive effects of inflation on benefit levels.

Although pension benefits legislation generally allows contribution holidays already, at least two statutory safeguards would be needed. One is the requirement of an unequivocally ample funding cushion at all times -- a cushion large

enough to provide for improvements to real benefits, not merely to ensure the payment of nominal benefits when they come due. The other is a clarification of what is meant by 'generally accepted actuarial principles', to lessen the danger that actuaries engaged by one party of interest or another might be left with the authority to make substantive value judgments on the entitlement to pension fund surpluses, under the guise of applying neutral actuarial principles.

NOTES

1. Statistics Canada, Quarterly Estimates of Trusteed Pension Funds, vol. 14, no. 3 (third quarter, 1986), at p. 7. Those increases in the third quarter of 1986 were less extreme, but in that quarter pension plan profits from the sale of securities 'constituted an all-time high of 19.5% of total revenue'. Loc. cit.

2. Ibid., at p. 6.

3. Ibid., at p. 11, Table 4.

4. Pradeep Kumar, Mary Lou Coates and David Arrowsmith, The Current Industrial Relations Scene in Canada, 1986, at p. 81.

5. Ibid., at p. 10.

6. Richard L. Deaton, The Political Economy of Pensions: Power, Politics and Social Change, unpublished Ph.D. thesis, University of Warwick, 1986, at p. 159.

7. Information Bulletin no. 14, July 18, 1959. See Donald J.M. Brown, 'Windfalls?' CBAO Continuing Legal Education, Feb. 5, 1987, at p. 3.

8. See, for example, Reevie v. Montreal Trust Company (1986), CCH Can. Emp. Bens. & Pens. Guide, para. 8016, at pp. 5600, 5602 (Ont. CA), infra, pp. 12-13.

9. Information Circular 72-13R, para. 13.1.

10. Para. 39.

11. Canada Permanent Trust Company v. Salaried Employees of King Seagrave Limited (1986), CCH Can. Emp. Bens. & Pens. Guide, para. 8017 (Ont. CA).

12. Ibid., at p. 5603 (per Zuber J.A.).

13. D.M.W. Waters, Law of Trusts in Canada, 2nd ed., 1984, at p. 301.

14. (1980) 103 DLR(3d) 109, at p. 111 (B.C. SC, Gould J.). The same argument also appears to have been accepted by a Manitoba trial court in Martin and Robertson Administration Ltd. v. Pension Commission of Manitoba, noted (1980) A.C.W.S. (2d) 249, discussed by Gordon Sedgwick, 'Surplus and Inflation Protection: The Legal Context', Insight Educ. Services, March 30, 1987, at pp. 14-18.

15. (1985) 51 OR(2d) 668 (Ont. HC -- Pennell J.).

16. Ibid., at p. 671.

17. RRO 1980, Reg. 746, as amended. At that time, it was s.14(4)(c).

18. Supra, n. 15, at p. 674.

19. Section 34 simply provides that '[n]o amendment to a pension plan shall reduce the pension benefit credit accrued to the date of the amendment'.

20. Waters, supra, n. 30, at p. 291, quoted in Reevie, supra, n. 8, at p. 5601.

21. Supra, n. 8.

22. Ibid., at p. 5601.

23. Ibid., at p. 5602.

24. Supra, n. 13, at p. 311.

25. In this section, I have made use of a worksheet prepared by Jerry Cooper, Ontario Ministry of Corporate and Consumer Affairs, summarizing the 'consensus position' of the Canadian Association of Pension Supervisory Authorities on surplus withdrawals and the relevant statutory provisions in the six largest Canadian jurisdictions with pension benefits legislation. The worksheet was distributed at a Law Society of Upper Canada Continuing Education Seminar on the new Ontario Pension Benefits Act, May 28, 1987.

26. For example, Pension Benefits Standards Regulations, 1985, (Federal) SOR/87-19, s. 16(2)(a).

27. For example, Alberta Employment Pension Plans Act, SA 1986, c. E-10.05, s. 58. The Federal Regulations are to substantially the same effect: the employer must establish its entitlement to a refund of the surplus.

28. Supra, at pp. 5.

29. For example, Federal Act, ss. 9(5)(b) and 29(7); Ontario Bill 170 of 1986, ss. 79 and 80.

30. The best-known example is Collins v. Pension Commission of Ontario and Dominion Stores Limited (1986) CCH Can. Emp. Bens. & Pens. Guide, para. 8019 (Ont. HC). Another is Heilig v. Dominion Securities Pitfield Ltd. (1986) CCH Can. Emp. Bens. & Pens. Guide, para. 8020 (Ont. HC). What I say in the text should not be taken as disapproval of the court decision in either of those cases. The courts were, I think, amply justified in their holdings in both cases.

31. Ontario Pension Commission, 'Release re Application for a Refund of Surplus Assets from a Pension Plan', (1986) CCH Can. Emp. Bens. & Pens. Guide, para. 8022, at p. 5627. To somewhat the same effect is a May 20, 1987 bulletin from the Employment Pensions Branch in Alberta, (1986) CCH Can. Emp. Bens. & Pens. Guide, para. 8040, part B(l).

32. SM 1975, c. 38 -- Continuing Consolidation, c. p-32, as amended.

33. Added by SM 1986, c. p-32.

34. Pension Commission of Manitoba, 'Information Circular--Proposed Surplus Withdrawal Guidelines'. April 1, 1987.

35. 'Plan members' is defined, in a footnote to the guidelines, to include current employees, retirees receiving a pension, and 'former employees entitled to a deferred pension from the plan'.

36. Presumably, the plan members would be unlikely to consent to employer withdrawal of surplus unless they were persuaded that they themselves would benefit. They (or some of them) might be so persuaded by evidence that a withdrawal would resolve employer financial problems which could otherwise lead to job losses, or by an employer offer of countervailing benefits, financial or otherwise.

There is no indication, in para. 1 or elsewhere in the proposed guidelines, of the percentage of plan members who would have to approve of a withdrawal, or of whether the approval of the bargaining agent would be necessary or sufficient in the case of organized employees. As para. 1 is now worded, it could well be interpreted to require the unanimous consent of each and every plan member as a prerequisite to any withdrawal of surplus by the employer. If and when the courts were asked to scrutinize that paragraph for consistency with the Act, they might accept the idea that consent of the beneficiaries is an appropriate litmus test for an 'equitable' withdrawal, given the difficulty of identifying other criteria. A consent-based interpretation of 'equitable' could, however, give the courts more trouble if it were carried to the point of requiring unanimous approval.

37. Para. 3 would require that the cushion be:

'...the greater of:
(a) 2 years of employer current service contributions, and
(b) 125% of the plan's liabilities determined on a plan termination basis less the plan's going concern liabilities'.

38. Provision is made in para. 4 for an employer application for court interpretation of the relevant provisions of the plan if the Pension Commission refuses consent to a surplus withdrawal on the basis of its interpretation of the plan.

39. An obvious shortcoming of para. 2 is that the complex and controversial question of the form and extent of inflation protection is not addressed.

40. (1974) Pub. L. no. 93-406, 88 Stat. 829.

41. 'To protect employee benefits, ERISA effected three significant changes in the law. First, it introduced minimum vesting standards to which all funded plans would be required to adhere. Second, to ensure adequately funded plans, it increased the employer's minimum annual plan contributions

and held plan fiduciaries to tough new standards for investment of plan assets. Finally, ERISA created the Pension Benefit Guaranty Corporation (PBGC) to insure defined benefits'. Norman P. Stein, 'Raiders of the Corporate Pension Plan: The Reversion of Excess Plan Assets to the Employer', (1986) 5 Am. J. Tax Policy 117, at 124-25.

42. Section 403(c)(2A) of ERISA, 29 USC s. 1103(c)(2A), provides that s. 403(c)(1) does not preclude an employer, within one year, from getting back a contribution made through 'a mistake of fact'. An actuarial overestimate of the employer contributions needed to meet plan liabilities would appear to be a mistake of fact. However, employer attempts to recover overpayments in the courts have failed in recent years, on the ground that ERISA does not give employers a right of action for that purpose. A careful study of the case law has led one author to conclude: '...the current law probably precludes employers from effectively taking legal action to recover overpayments. Actions based on ERISA and the [Labor Management Relations Act], and attempts to deliberately underpay a trust so as to set off overpayments, are all likely to fail or prove ineffective.' Jonathan B. Stone, 'A Path of No Return: Employer Overpayments into Employee Benefit Plans', (1986) 8 Ind. Rel. L.J. 68, at p. 103. It should be noted that Mr. Stone is critical of the state of the law. He argues, at p. 103, that '[t]he inability of employers to recover overpayments could serve as an incentive for employers to withdraw from plans, reduce contribution levels and avoid creating new plans'.

43. RRO 1980, Reg. 746, as amended.

44. 29 USC s. 1344(d)(1).

45. This section of ERISA, unlike s. 14(6)(c) of the Ontario Pension Benefits Act Regulations, does not provide for the immediate vesting of all accrued employee benefits upon termination of a plan. However, Professor Stein, quoting s. 411(d)(3) of the American Internal Revenue Code, says: 'The first requirement [upon termination] is that 'the rights of all affected employees to benefits accrued to the date of such termination ... to the extent funded as of such date ... are non-forfeitable', i.e., all employees become vested in their benefits to the extent the benefits are funded.' Stein, supra, n. 41, at p. 128.

46. Little and Seifert v. Kent-McClain of Canada Limited (1972) CCH Can. Pens. Rep., para. 8054 (Ont. HC), aff'd Ont. CA, Jan. 1973 (unreported); Reevie v. Montreal Trust Company (1986) CCH Can. Emp. Ben. & Pens. Guide, para. 8016 (Ont. CA).

47. Stein, supra, n. 41, at p. 131, n. 57. A well-known instance of last-minute plan amendment to allow employer access to surplus is provided by Washington-Baltimore Newspaper Guild v. Washington Star (1983) 555 F. Supp. 257 (D.D.C.), aff'd (1985) 729 F.2d 863 (D.C. Cir.), referred to by Senator Howard Metzenbaum, 130 Cong. Rec. S2795 (March 15, 1984).

48. Note, 'Pension plan terminations and asset reversions: accommodating the interests of employers and employees', (1985) 19 U. Mich. J. L. Reform 257, at p. 268, n. 76.

49. Richard A. Ippolito, 'Issues Surrounding Pension Terminations for Reversion', (1986) 5 Am. J. Tax Policy 81, at p. 83. Mr. Ippolito adverts, at p. 104, to a lack of data on the extent to which past service credit is given in termination-reestablishment cases.

50. Reprinted (1984) 11 BNA Pens. Rep. 724.

51. 130 Cong. Rec. E4250 (Oct. 5, 1984 -- Congressman Edward R. Roybal).

52. Ibid.

53. Ibid.

54. Officially the Advisory Council on Employee Welfare and Pension Benefit Plans.

55. Report of the Termination Task Force to the Advisory Council on Employee Welfare and Pension Benefit Plans, May 1986. I have had access only to the Executive Summary, reprinted in (1986) CCH Pens. Plan Guide, para. 23,705 0, at p. 25,129-87.

56. Ibid., at p. 25,129-88.

57. Ibid., at pp. 25,129-88 - 25,129-89.

58. Ibid., at p. 25,129-89.

59. That this is what the Task Force meant is confirmed by the body to which the Task Force reported, the Advisory Council on Employee Welfare and Pension Benefit Plans, in the latter's Report to the Secretary of Labor, dated June 12, 1986 (unpublished), at p. 18: 'The Advisory Council recommends that excess asset withdrawals be treated as experience losses with a ten-year amortization period. We believe requiring repayment, except in the most extreme cases of overfunding, will enhance funding and should bolster participant and beneficiary confidence in the plan'. The Advisory Council also notes, at p. 8, that both the National Association of Manufacturers and the United States Chamber of Commerce expressed concern about this recommendation.

60. 'Prior to ERISA, a firm could have explicitly borrowed monies from the pension plan (after satisfying s. 503 of the [Internal Revenue] Code). But since ERISA, such borrowing (beyond 10 percent of the plan's assets), is illegal'. Ippolito, supra, n. 49, at p. 94. The reference is to s. 407(a)(2) of ERISA, 29 USC s. 1107(a)(2), which prohibits a pension plan from putting more than 10% of its assets into the employer's securities or the employer's real property.

61. Supra, n. 49.

62. Ibid., at p. 82.

63. Ibid., at p. 109.

64. Ibid., at pp. 108-09. The other two major recommendations of the Task Force should be noted. One was that the Administration's Joint Implementation Guidelines be retained, because they favour the continuation of defined benefit plans in termination situations, but that they be modified in two ways: (a) by imposing a surcharge on asset reversions following a plan termination, in line with the recommendation for a surcharge on assets removed from ongoing plans; and (b), by requiring a successor defined benefit plan, set up after a termination, to give employees credit for past service. The other major recommendation was to '[r]equire advance notice of plan terminations to participants, along with an explanation of the economic impact of the transaction'. (1987) CCH Pens. Plan Guide, para. 23,705 0, at p. 25,129-89.

65. Supra, n. 59.

66. 'Statement of the Reversion Policy Study Group before the Advisory Council on Employee Welfare and Benefit Pension Plans', June 2, 1986, unpublished, at p. 5.

67. Set out above, at p. 12-13.

68. Supra, n. 66, at pp. 13-14. The Study Group makes interesting use of Ontario law in the following passage, at pp. 8-9:

> 'The Task Force has recommended that the plan sponsor be permitted to withdraw plan assets in excess of 120% of plan liabilities, viewed on a termination basis. As precedent for this approach to a cushion, the Task Force cites the procedure in Ontario, Canada, which permits withdrawals in excess of 125% of plan liabilities calculated on an ongoing basis. The difference between computing liabilities on a termination basis and an ongoing basis can be substantial. In plans based on final pay, the plan's ongoing funding method anticipates future increases in compensation; thus, the employer's contributions to the plan would have assumed that the benefits already accrued by participants will increase in value as the compensation of the participants increases in the future. In a determination of plan liabilities on a termination basis, however, accrued benefits are valued as of the date of the plan's termination (or of the withdrawal). In many cases, 120 percent of liabilities on a termination basis will be substantially less than 100 percent of liabilities computed on an ongoing basis.
>
> To the extent the Task Force's rationale for proposing a withdrawal scheme rests on the Canadian precedent, there is no apparent reason why the Canadian precedent, namely calculation of liabilities on an ongoing basis, should be ignored'.

69. 133 Cong. Rec. S2227 (Feb 19, 1987). The proposal was appended to the Administration's draft Trade, Employment and Productivity Act, presented to Congress on February 19, 1987. It is entitled 'The Administration's Proposal on the Funding and Termination of Defined Benefit Pension Plans.' As of July 1, 1987, it had not yet been put into legislative language.

70. 'Administration's Proposal...', supra, n. 69, at p. 6. In the case of benefits protected by annuities, the cushion would be reduced to 40% and 110%.

71. 'Administration's Proposal...', supra, n. 69, at pp. 7-8.

72. Ibid., at p. 8. The Administration proposal (pp. 9-13) also suggests detailed amendments to the ERISA minimum funding standards, which it acknowledges 'do not adequately assure that plans will have enough assets to pay participants' benefits when they become due.' (p. 10) Those amendments are 'primarily directed at improving the funded status of plans that are underfunded on a termination basis.'(p. 10)

In what is clearly an attempt to induce employers to use pension plan surpluses to help alleviate the scandalous inadequacy of American public health insurance, the proposal would allow them 'to transfer defined benefit plan assets available for withdrawal to a tax-favored health fund for current retirees without current tax consequences'. (p. 19)

73. 130 Cong. Rec. E4250 (Oct. 5, 1984).

74. Ibid., at p. E4249.

75. Ibid., at p. 4250.

76. 133 Cong. Rec. E1319 (April 7, 1987).

77. HR 6404; 130 Cong. Rec. E4249 (Oct. 5, 1984).

78. HR 2701; 131 Cong. Rec. E2614 (June 6, 1985).

79. Ibid., at p. E4250.

80. Ibid., at p. E4251.

81. Supra, pp. 14-15.

82. Pension Plan Reversion Moratorium Act of 1985, HR 3121; 131 Cong. Rec. E3614 (July 31, 1985). A year earlier, a bill (S2435, 1984) imposing a nine-month moratorium on terminations was introduced in the Senate by Senator Howard M. Metzenbaum, Chairman of the Senate Subcommittee on Labour. Senator Metzenbaum argued that a moratorium would be the only way to give Congress time to act 'without letting hundreds of millions of dollars slip through the door in the interim'. 130 Cong. Rec. S2976 (March 15, 1984).

83. Ibid., at p. E3615.

84. 133 Cong. Rec. E1319 (April 7, 1987).

85. HR 1942; 133 Cong. Rec. E1319 (April 7, 1987).

86. Ibid., at p. E1320. None of Congressman Roybal's or Senator Metzenbaum's bills on pension plan surpluses appears to have made any headway in Congress.

87. Canadian Institute of Actuaries, 'Disposition of Pension Plan Surplus', December 8, 1986, at p. 12.

88. Canadian Labour Congress, 'Comments on 'Disposition of Pension Plan Surplus' ', March 1987, at p. 5.

89. James E. Pesando, 'An Economic Analysis of the Green Paper Proposals for the Reform of Employer-Sponsored Plans', in David W. Conklin, Jalynn H. Bennett and Thomas J. Courchene (eds.), Pensions Today and Tomorrow: Background Studies, Ontario Economic Council, 1984, p. 138, at p. 148.

90. 'Some of the authorities allow 15 years for [paying off] certain experience deficiencies, for example those arising because of inflationary salary increases, provided the employer files a supplementary actuarial valuation, called a test valuation'. Laurence E. Coward, Mercer Handbook of Canadian Pension and Welfare Plans, 8th ed., 1984, at p. 254.

91. Merton C. Bernstein, The Future of Private Pensions, Free Press, 1964, at p. 119. According to Professor Pesando, economic analysis reaches the same conclusion as these empirical observations: that the employee ultimately bears the cost of pension improvements, except perhaps retroactive ones, through 'an equal concession in current wages or other concessions in the total compensation package'. Pesando, supra, n. 89, at p. 140.

92. Stein, supra, n. 41, at p. 154.

93. Deaton, supra, n. 6, at pp. 139-41. For example, in the factually different but analogous context of tort claims for damages for personal injury, English and Canadian courts have held that pension benefits are a part of the employee earnings package and should therefore be deducted from awards of damages to injured employees. In a leading Ontario Court of Appeal decision on whether fringe benefits are part of an employee's wages for the purpose of calculating tort damages, Dubin J.A. observed: 'It is well known that in the determination of a remuneration to be paid to employees 'fringe benefits' are considered in arriving at a total wage package, and the amount of the weekly salary or wage is dependent upon the cost of the totality of the benefits'. Boarelli v. Flannigan (1973) 3 OR 69, at p. 79 (Ont. CA).

94. Eileen Gillese, 'Employee Rights under Bill 170', Law Society of Upper Canada Continuing Legal Education, May 28, 1987, p. 5.01.

95. I am speaking here of surpluses attributable to employer contributions, on the assumption, which seems to be widely shared, that employees are entitled to any surplus attributable to their own contributions.

96. This terminology comes from Bob Baldwin, Policy and Planning/Research and Legislative Department, Canadian Labour Congress.

97. I have outlined the Canadian law and practice on workforce reductions in E. Yemin (ed.), Work Force Reductions in Undertakings, International Labour Office, 1982, p. 37.

98. Pesando, supra, n. 89, at p. 148.

99. Supra, pp. 16.

100. Supra, pp. 20.

101. Canadian Union of Public Employees Local 1000 v. Ontario Hydro (1987) 59 OR (2d) 31 (Ont. Div. Ct.).

102. RSO 1980, c. 384.

103. Supra, n. 101, at p. 37.

104. Ibid., at p. 41.

105. Ibid., at p. 42.

106. 'Disposition of Pension Plan Surpluses', supra, n. 87, at p. 4.

107. Supra, n. 88, at p. 3.

Pension Benefits and their Adjustment, the Experience in Five Countries: the United Kingdom, the United States, the Federal Republic of Germany, France and Sweden

Mildred J. Morton

CONTENTS

Pension Benefits and their Adjustment, the Experience in Five Countries: the United Kingdom, the United States, the Federal Republic of Germany, France and Sweden

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I INTRODUCTION

What provisions are there for indexing employment pension plan benefits in other countries? This question can be answered in a few pages. In three of the countries in this study, the Federal Republic of Germany, France and Sweden, employers are required to index benefits. In France benefits are indexed to wages, in the other two countries, to prices. Employers in the United Kingdom who are contracted out of the state earnings-related pension plan -- over 80% of all firms with 100 or more workers, 18% of all smaller firms -- will soon be required to index the portion of the benefit which is equivalent to the state pension, to a maximum of 3% of the increase in prices; the plan itself will be responsible for adjustments in excess of 3%. The government is not considering the imposition of further requirements. Inflation protection for employment plan benefits is not mandated in the United States, nor is such a policy being seriously considered by the Administration or by Congress.

These statements need some refining, but not much. What then justifies the length of the text which follows? It is a premise of this study that a description of the policies practices and projected policies of various countries with respect to inflation protection is not useful in deciding what we in Ontario should do, unless it is given some context. One must know whether the countries are sufficiently like us if their policies are to influence us. For this reason the study does a number of things. For each country it describes the principles on which the retirement system is based, and provides some background

on the way the system evolved. It describes the state pension plans, their benefits and their financing arrangements (which involve a tax on earnings), the relationships which exist between state and employment plans, the extent to which employment plans are regulated, and how they are financed. Because retirement plans are only one component of a set of social security programs, these other programs and their costs are also briefly described.

There are a number of observations one might make about the pension policies of the countries in this study. The Task Force on Inflation Protection was particularly interested in knowing whether the absence of inflation protection in employment plans was compensated for by a generous public plan. If anything, generous public arrangements are accompanied by generous contractual arrangements rather than being substitutes for them.

The Federal Republic of Germany, France and Sweden have the most costly public pension programs (and the most costly social security programs), in part because the plan benefit structure is richer, in part because of the demographic structure of these countries. In 1983, expenditures for public pensions in the Federal Republic of Germany and France amounted to over 12% of the GDP of these countries, and to a little under 12% of GDP in Sweden.(1) In each country most or all of these costs are financed by a tax on earnings. Nonetheless, in France and Sweden contractual pension arrangements are heavily regulated. In particular, pension coverage is mandatory and benefits are adjusted annually. While private sector employment plans are not subject to the same regulatory burden in the Federal Republic of Germany, employers are required to adjust benefits, although it has been left up to the courts to determine the precise nature of the requirement. It is probably relevant that pension adjustments, and the structure of the adjustment mechanism, are central to the West German public pension scheme. Although the financing of pension expenditures, both public and contractual, is a matter of great concern in all three countries, none is seriously contemplating radical reform of the system; certainly none is thinking of abandoning the existing policy of adjusting benefits.

In contrast, the United Kingdom spent 7% of GDP on pensions in 1983, and the United States 8%. Canada spent 5%.(2) One of the reasons the amount is as low as it is in the United Kingdom is that the public earnings-related plan was only introduced in 1978, and will not mature until 1990. Public plans

in Canada and the United States are paying out full benefits, but both countries have a more favourable demographic structure than the European countries. (And this situation will change after the year 2010 when the 'baby boom' generation starts to retire.) Even so, it is also the case that the public plans in all three countries are less generous than their European counterparts. As part of a process of pension reform in both the public and the private sector, the United Kingdom has introduced measures which will reduce earnings-related benefits even further.

The United Kingdom has just undergone a process of pension reform. The United States has recently debated and implemented changes to its public plan and is considering changes in policy with respect to employment plans. However, the United Kingdom has not shown an interest in mandating inflation protection for employment plan benefits beyond a minimum level, and the United States has shown little interest in doing so.

What do we make of this? For the writer what this study reveals is the importance of context in examining any retirement practice. Policy decisions in this area are very much dependent on history, on social and economic factors characteristic of the country, and on a particular view of the role of the state. Public and private pension arrangements in all the Western European countries in this study were affected by the inflation they experienced between the two world wars. The contractual pension arrangements which exist in France and Sweden were collectively bargained before they were mandated. The pension reform which is now being implemented in the United Kingdom is based on the deeply-held belief that the state should only be providing basic protection for its citizens. In turn, our own decisions must come from our traditions, our principles, and our experience.

II THE UNITED KINGDOM

A Summary*

Pension legislation in the U.K. has undergone a number of changes since the National Insurance Act was introduced in 1946. Further changes are proposed as part of the present government's plan for social security reform. The changes reveal a lack of consensus as to the state's role in providing for retirement.

Public pension benefits are one element of a contributory national insurance scheme. Other benefits are also work-related and cover (part of) the earnings losses resulting from maternity, sickness, disability and unemployment. The pension program consists of two tiers: a basic flat-rate benefit, and an earnings-related benefit.

The flat-rate benefit has been part of the insurance program from the beginning. It was designed to provide income support at subsistence level. The real value of the benefit has increased over the years. However, the present amount is still not large. In 1985-86, the basic pension was 35.80 per week (Ł1,862 or $3,550 per year).

An earning-related benefit has existed since 1961. It has been the subject of much review, with Labour governments pressing to improve the earnings-related scheme, and Conservative governments trying to eliminate it. At the heart of the disagreement over the benefit are different points of view about the state's responsibility for income replacement at retirement. The Conservative governments in power in the 70's and 80's have clearly not been comfortable with direct government involvement in an earnings-related plan. In 1970 the government proposed to do away with the existing plan and rely primarily on employment plans to provide earnings-related support. The government did, however, propose to establish a contributory money purchase scheme as a fall-back for employees who were not covered by an employment plan at a recognized level. In a Green Paper published in June 1985, the Thatcher government

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* *The summaries do not only provide a resume of the facts in the full text, they also present them from the writer's point of view. Sources for the factual material are given in the endnotes.*

stated that it intended to replace the present earnings-related scheme with mandatory private sector money purchase plans. After public consultation, the government retreated from this position. In a White Paper issued in December 1985, it announced that it would keep the earnings-related scheme, although there would be reductions to the benefit formula.

The present State Earnings-Related Pension Scheme (SERPS) came into effect in 1978 and will mature in 1998. It is designed to replace 1/4 of the total of the best 20 years revalued (adjusted) covered earnings. Covered earnings are those between the flat benefit amount and a ceiling. Earnings are revalued according to changes in average wages. The 1985 White Paper proposals would reduce the benefit formula to 20% of career average earnings. The changes would apply only to pensions which come into pay after the turn of the century.

In 1985-86, the earnings ceiling was Ł265 per week (Ł13,780, -- $26,240-- per year). In 1998-99, the maximum SERPS pension in 1985 terms will be about Ł2,984 ($5,670). The total public retirement pension -- including the flat-benefit -- after the SERPS matures will range from around 50% of final earnings for lower-paid single employees to around 33% of final earnings for single employees with earnings at the ceiling (1985 terms).

An important and unusual feature of the SERPS, as well as that of its predecessor, is the ability of employers to contract out of the plan if the benefits of their employment plan are as least as good as the SERPS benefits. In return, employers and employees pay a reduced rate on the covered earnings portion of their national insurance contributions. In other words, in the U.K. system employment plans not only supplement the state plan, they may be alternatives to it: both state and private enterprise are considered to be responsible for a minimum amount of income replacement.

One effect of allowing contracting out seems to have been that regulatory policy regarding employment plans has been directed primarily to ensuring that plan designs meet the criteria for providing benefits at least as good as the SERPS. Up to now, regulations have been very strict. As a result, contracting out has been a practice of larger plans, although it has been popular among these plans: the Government Actuary's survey conducted in 1983 indicates that 83% of plans with 100 members or more were contracted out.

Government policy with respect to inflation protection for employment plans must be understood in this context. The preservation of the real value of the public pension benefit has been a long-standing commitment of both Labour and Conservative governments. Automatic adjustment of benefits was introduced in 1973. The severe inflation of the 70's led both parties to change the adjustment formula in order to reduce costs; nonetheless, the principle was not abandoned. Consistent with the principle that employment plans are also guarantors of a minimum earnings-related benefit, that portion of the benefit which corresponds to the SERPS pension -- the 'guaranteed minimum pension' (GMP) -- must be indexed. However, under existing legislation, the employer is not responsible for indexing the GMP when it is in pay; rather, the SERPS bears the cost. (Thus, employees of a firm which is contracted out still have claims under the SERPS.) The 1985 White Paper proposals would change this arrangement. According to these proposals employers would be responsible for indexing GMPs in pay up to a maximum of 3% per year. The SERPS would pay any difference between the actual increase in the price index and the employer limit. The national insurance contribution rebate would be adjusted to reflect the increased cost to the employer arising from the obligation to index the GMP.

Until 1986, there were no indexing requirements on employment plan benefits other than the GMP. As of January 1, 1986, as part of the government's plans to make pensions more portable, vested benefits of terminating employees left in an employment plan must be adjusted at a rate of 5% per year or the increase in the price index, whichever is lower.

It is clear the present government is not considering further measures to regulate indexation at this time. The primary impetus for the recent pension reform proposals, as they affect employment plans, is to shift the responsibility for earnings-replacement from the state to private endeavour. The government has decided to retain the SERPS. But other proposals in the 1985 White Paper are directed to encouraging the expansion of money purchase employment plans and individual pension savings arrangements (analogous to RRSPs), which for the first time would be able to contract out of the SERPS. To complement these measures, the requirements for contracting out would be simplified.

Although it has not been government policy to mandate inflation protection in employment plans, the practice of voluntarily providing inflation protection

for benefits has been common, and has changed significantly. The Government Actuary's Report for 1979 states that in the period under review about 75% of private sector employment pensions in pay received some increase. Only one-fifth of all private sector pensions were increased by contractual arrangements; in virtually all these cases the promised increase was 3% per year. The most recent Report, which covers the period between the fiscal year 1981-82 and early 1984, indicates a greater willingness on the part of employers to make contractual arrangements, and a tendency to grant increases which offset and even exceed price increases. One-third of all pensions had been increased according to plan rules. Of these pensions, slightly more than 50% had received an additional ad hoc increase which in the great majority of cases brought the total increase to 5% and even more in some cases. Of the 46% of pensions which had received ad hoc adjustments, most had also been increased by 5% or more. The average pension increase over the period (where pensions had been increased) was 4.9%, and the average increase in retail prices, 5.0%.

One factor which may well be related to the improvement in voluntary inflation protection arrangements is the existence of plan surpluses, and the tax treatment of surplus withdrawals. In the past it was Inland Revenue practice to prevent employers from withdrawing surplus before they had exhausted other means of reducing it, such as taking contribution holidays, giving employees contribution holidays, improving benefits, and so on. It should be noted that the Finance Act of 1986 has changed this practice somewhat. Withdrawal is no longer treated as the method of last resort; however, withdrawals are subject to a new 40% tax.

B Public Retirement Pensions

The retirement pension is one of a group of benefits known as national insurance benefits.[1] Others include the maternity allowance, the sickness benefit, the invalidity pension, the unemployment benefit and benefits and allowances for widows and orphaned children. Together these benefits are funded on a pay-as-you-go basis through employer-employee contributions. The national insurance benefits are themselves a component of the social security system, retirement

pensions forming the largest single element of that system (42.2% of total social security expenditures in the fiscal year 1984-85). Other social security benefits include family-related allowances (grants to families with children, to single-parent families, and so on), and an income supplementation program for those of pre-retirement and retirement age. These programs are funded through general revenues.

The retirement pension is payable to men over 65 and women over 60 who are retired from work. There is a retirement test for the benefit: for men up to age 70 and women up to age 65 earnings over a nominal amount (Ⱡ73 -- \$126 -- in November 1984) are taxed at 100%.[2] The retirement pension consists of two elements: the basic pension and the earnings-related pension.

(i) *The Basic Pension*[3]

The basic pension is a flat-rate benefit. There are supplements for a dependent spouse and for children. To qualify for the full pension, employees must have made the required minimum contributions for at least 27 years of a working life of 31 years. For those in the labour force for less than 31 years, a reduced pension is payable if they have made qualifying contributions for at least 1/4 of their working life. Credits are given to women who drop out of the labour force to care for children or disabled persons.

Since it was introduced in 1946, the amount of the basic pension has been kept at little more than subsistence level. In 1985-86, it was Ⱡ35.80 per week or about Ⱡ1,862 (\$3,550) per year. The supplement for a spouse was about Ⱡ1,118 (\$2,120) per year. This represented a third of the average take-home pay for a single manual worker, and half the average pay for a married manual worker.[4]

(ii) *The Earnings-Related Pension*[5]

Legislation introducing an earnings-related tier of pension benefits was first passed in 1959, and was in operation from 1961 to 1975. The scheme was limited both in coverage and in benefits. The present scheme, called the 'State

Earnings-Related Pension Scheme' (SERPS), was introduced as part of the 1975 Social Security Pensions Act and came into force in 1978.

The scheme will mature 20 years after its inception in 1998. It covers earnings between the flat-benefit level (the 'lower earnings limit') and a ceiling (the 'upper earnings limit'). These amounts are set yearly, a year being the fiscal year, which starts in April. Since 1978, the ceiling has almost always been over 7 times the lower limit. In 1985-86, the lower earnings limit was Ł1,846 and the upper earnings limit Ł13,780 ($26,240). For those retiring in 1998 and after the pension is calculated as 1.25% of the total of the best 20 years' revalued covered earnings (or 1/4 of best 20 years' earnings). Earnings are revalued at retirement by a factor determined for each fiscal year on the basis of the increase in national average earnings. The maximum pension when the plan first matures is estimated to be about Ł2,984 ($5,670) per year in 1985 terms.[6]

In a White Paper issued in December 1985, the Thatcher government proposed to change the benefit formula in order to reduce benefits. These proposals would apply to pensions coming into pay from the year 2000. The White Paper proposals will be discussed in detail further on.

(iii) Related Benefits[7]

Provisions for survivor benefits are generous by most plan standards in that the maximum pension is equal to the full flat-rate retirement pension, up to a ceiling equal to the maximum retirement pension. Flat-rate survivor pensions are paid to women age 40 and over on the basis of their husbands' contribution record. The full benefit is paid to women who are 50 and over, or who have dependent children. Both men and women are eligible for earnings-related survivor pensions. Men must be at least 65, or disabled in order to receive a benefit. Women are eligible from age 40, but as with the flat-rate benefit, they are not entitled to the maximum pension until they are 50 or unless they have dependent children. A widow's allowance is available which covers a 26 week period after the death of the husband. The White Paper proposed to reduce the levels of survivor benefits.

There are no provisions for early retirement. However, retirement can be deferred up to age 70. In that case, pensions are increased by about 7.4% a year.[8]

(iv) Replacement Rate

The following table shows the estimated total (public) retirement pension for employees of various earnings levels as a percentage of final earnings. Employees are assumed to have retired after a full career and after the SERPS matures. The existing benefit formula, and not the proposed reduced formula, is used. Amounts are expressed in 1985 terms.

Annual Earnings in 1985	Total Nation Insurance Retirement Pension as a % of Final Earnings in 1985	
	Single Person	Married Man
5,000 ($ 9,500)	53%	76%
10,000 ($19,000)	39%	50%
15,000 ($28,600)	31%	39%
20,000 ($38,000)	23%	29%

Source: David Callund, Employee Benefits in Europe, Hall-Godwins (Overseas) Consulting Co., 1981, p. 06-17-08.

(v) Adjustments to Benefits[9]

The National Insurance Act, which introduced the flat-rate retirement benefit, provided that benefits be revised every 5 years, after an actuarial report on the financial situation of the program. In fact, revisions were made much more frequently on an ad hoc basis. In 1973, the government took on a statutory commitment to adjust the flat-rate pension annually to the higher of changes in average earnings and the General Index of Retail Prices. When the present legislation was introduced in 1975, provision was made to continue indexing the flat-rate benefit to the higher of wages or prices; however, indexation of the

earnings-related benefit was to be to prices only. Severe price inflation and the economic recession of the 70's, which reduced aggregate wages, caused both Labour and Conservative governments to change the adjustment mechanism in order to slow down benefit increases. In 1976, for example, officials began to use a prospective method for making adjustments; that is, adjustments were determined on the basis of projected rather than actual increases. Where the projections underestimated increases, the shortfall was not always made up. In 1980, the Conservative government changed the basis for determining the flat-rate benefit to price increases only.

(vi) Financing[10]

National insurance benefits, of which the retirement pension is a part, are funded mainly by employer-employee contributions on a pay-as-you-go basis. Some funding is provided by government revenues. Contribution rates are set yearly. There is a contribution ceiling which is equal to the upper earnings limit. Employers may contract out of the SERPS, though not the flat-benefit. In this case the contribution rate on covered earnings is reduced for employers and employees. Since October 1984 full contribution rates have been 10.45% of payroll per year for employers and 9.00% of earnings for employees. Reduced rates on covered earnings for those contracted out are 6.35% for employers and 6.85% for employees. In 1988-89 the rebate will be reduced for both employers and employees. The Treasury supplement to the national insurance fund for the year 1984-85 was estimated to amount to 11.5% of expenditures.[11]

C Employment Pension Plans

The national insurance pension provides a relatively modest level of benefits for all but the lowest paid employees. The majority of employers operate private plans to supplement the public retirement and survivor benefits. Supplementary coverage is not mandatory, however. Plan coverage reached its peak in the 60's, when 54% of the workforce was enrolled in an employment plan. Membership decreased after that, and has been virtually static since

1971. In 1983, 51% of the workforce was covered, coverage in the public and private sector being about equal.[12]

An important feature of the public pension system is the ability of an employer to contract out of the SERPS in respect of defined categories of employees if employment plan benefits are as least as good as the public benefit. Most larger plans are contracted out, although the practice is not popular with smaller plans. According to the Government Actuary's survey conducted in 1983, 83% of plans with 100 members or more (and 86% of all plan members) were contracted out. Only 18% of smaller plans were contracted out.[13]

Because of the popularity of contracting out, the benefit structure of employment plans is largely determined by the provisions for contracting out contained in the Social Security Pensions Act, 1975, as well, of course, as taxation requirements relating to the maximum benefit. Only the Social Security Act requirements will be discussed here.

(i) Contracting-Out Requirements[14]

The main requirements cover plan design and benefit levels, vesting and portability, and funding.

Only defined benefit plans may be contracted out. Employees must be provided with a pension of at least 1.25% of 'final pensionable earnings' for each year of contracted-out employment, up to a maximum of 40 years. What constitutes pensionable earnings is partially left to the discretion of the employer. The term 'final earnings' includes career average earnings which have been revalued in line with wage increases, as well as earnings at or near retirement age.

The pension must not be less than the 'guaranteed minimum pension' (GMP). The GMP is calculated in the following way. All earnings between the lower earnings limit and the upper earnings limit during the period of contracted-out employment are revalued in accordance with the SERPS. For employees due to retire before April 1998, the GMP is 1.25% of revalued covered earnings. For employees due to retire after that date, the GMP is 25% of revalued covered earnings divided by the number of years from April 1978 to April of the year

preceding the year of normal retirement age. In cases where the GMP is less than SERPS pension would be, because the SERPS pension is based on best 20 year earnings and not adjusted career average earnings, the SERPS will make up the difference.

The GMP must be available from age 65 for men and age 60 for women. If the employee continues working beyond normal retirement age, the GMP must be increased by 1/7% per week (about 7.4% per year) of deferment.

There must be a survivor benefit of not less than 50% of the employee's pension for widows who would qualify for national insurance widows' benefits.

GMPs vest immediately. A terminating employee who is not vested according to the employment plan can have the right to a GMP transferred to the SERPS by payment of a premium equal to the contributions that would have been paid to the state scheme. If the terminating employee is vested, the accrued GMP must either be retained in the former employer's plan or transferred to a new employment plan or an insurance policy.

An accrued GMP must be revalued in line with earnings. An employer may use one of three methods of revaluation. The plan may provide for full revaluation according to the provisions applicable to SERPS benefits. The plan may provide for revaluation up to a limit of 5% per year; the employer then pays a premium to the SERPS to cover additional revaluation. The plan may provide for a fixed-rate revaluation, in 1985 8.5% compound, for each year.

Plans must be fully-funded, in the Canadian sense. Plans which are not contracted out may be financed on a pay-as-you-go basis.

(ii) Other Statutory Requirements[15]

The government recently introduced legislation to improve the vested pension rights of terminating employees. The legislation came into effect on January 1, 1986 and applies to the full accrued benefit, not just the GMP. The principal provisions are the following. The age requirement for vesting is eliminated, so that the pension vests after 5 years. Terminating employees are given the right to transfer the value of the vested benefit to a new employment plan, an insured policy, or to a personal pension (a vehicle analogous to an RRSP).

Vested benefits arising after January 1, 1986 left in the plan must be adjusted to prices annually. There is a maximum adjustment rate of 5% compound.

(iii) Adjustments to Benefits[16]

There are no statutory requirements governing the indexation of pensions other than the provisions applicable to the GMP and the deferred vested benefits of terminating employees. The White Paper proposals do not change this situation. However, the practice of voluntarily adjusting benefits has been common since the late 70's at least, and has changed significantly since then.

The 1979 Government Actuary's Report states that in the period under review about 75% of private sector employment pensions in pay received some increase. Eighty percent of the adjustments were ad hoc. These were generally equal to about 40% to 50% of the rise in the cost of living. Where adjustments were contractual, the promised increase was almost always 3% of the price index. The Report issued in 1986 contains data about the two most recent pension increases in the period between 1981 and 1983 (data also covered early 1984). During that time 79% of pensions were increased. Thirty-three percent were adjusted on the basis of contractual arrangements. Most of the promised increases were for 3%, but 12% were for 4% or 5%; 6% were for the full price increase. Moreover, slightly more than half the pensions which received contractual adjustments also received discretionary adjustments, which in the great majority of cases brought the total increase to 5%, and even higher in some cases. Similarly, of the 46% of pensions which received ad hoc adjustments, most were increased by at least 5% or higher. The average retail price increase for the period was 5.0%, the average benefit increase (where pensions were increased) was 4.9%.

The data led the Actuary to conclude that 'private sector schemes have not generally awarded pension increases to match price rises when inflation has been high but it appears that many took the opportunity of lower rates of inflation to grant increases in excess of the inflation rate'.

One factor which may well be related to the improvement in voluntary inflation protection arrangements is the existence of plans surpluses, and the tax treatment of surplus withdrawals. Most plan funds are in surplus. Before

1986 it was the practice of the tax authorities not to allow withdrawals before employers had reduced surpluses by other means, such as taking contribution holidays for 5 years (or less), allowing employees to take contribution holidays, improving benefits, and so on.

Schedule 12 of the Finance Act of 1986 now allows employers to withdraw surpluses without having to give priority to other methods of reducing them. However, withdrawals are subject to a 40% tax. Withdrawals are not treated as income or capital gain, so that the tax cannot be offset by deductions for losses. Nor can it be used to offset other taxes.

D White Paper Proposals to Reform the Pension System

In a Green Paper issued in June 1985, the Thatcher government proposed to eliminate the SERPS for men under age 50 and women under age 45.[17] In its place, employers and employees would be required to make minimum annual contributions to an employment pension plan or to the employee's 'personal pension' (a savings plan analogous to an RRSP). The total minimum contribution rate would be 4% of earnings with the employer responsible for at least half of that amount. The government gave a number or reasons for this proposal: given demographic projections the SERPS would be too costly in the future; individuals, and not the state, should be responsible for supplementing the basic pension; the provisions for contracting out act as a disincentive to the establishment of employment plans in that they are administratively complex, and require the establishment of defined benefit plans, a commitment many employers are reluctant to make.

When it published its White Paper on social security reform in December 1985, the government retreated from this position.[18] The SERPS was to be retained. However, the concerns which motivated the original proposals were much in evidence in their successors: the benefit structure of SERPS would be changed in order to reduce the costs of the program in the next century; incentives would be given to increase the number of both defined contribution employment plans and personal pensions, which would also be able to contract out of the SERPS.

The proposed changes to the SERPS were that:

- employment plans contracted out of the state scheme would be responsible for indexing GMPs in pay up to 3% a year; if inflation exceeded that ceiling the SERPS would make up the difference;
- benefits would be based on career earnings, not on the best 20 years;
- benefits would be calculated on 20% of earnings, rather than 25;
- the maximum survivor benefit would be 50% of the original pension.

Changes would be introduced in April 1988. They would not affect pensions coming into pay until the year 2000-01.

In addition, arrangements for employment plans to contract out of the SERPS would be made simpler, and a money purchase test for contracting out, based on a guaranteed minimum level of contributions rather than a guaranteed minimum pension, would be introduced. The minimum contribution would be equal to the total contracting-out rebate: that is, 6.25% of earnings for 1987-88, and 5.8% from 1988-1993. The vesting period would be reduced to 2 years. Employees would be allowed to opt out of employer plans if they had their own personal pension, and they would also be allowed to contract out of SERPS. Retirement annuities bought with personal pension savings would have to have an 'inflation protection' feature: payments would have to increase up to 3% per year.

All personal pensions and employment pension plans contracted out for the first time between 1988 and 1993 would receive a rebate which would be additional to the usual reduction on contributions to the national insurance program. The rebate would be 2% of earnings each year. This program would end in 1992-93. The rebate would have to go into the employment plan or the personal pension. Where an employee chose to opt out of an employer's plan, the employer would have no statutory obligations to him or her beyond the contracting out rebate.

The government also proposed that provisions for survivor benefits in both the SERPS and employment plans apply equally to men and women.

Legislation introducing most of the measures necessary to implement these changes is contained in Part I of the Social Security Act 1986.

III THE UNITED STATES

A Summary

The direction of pension policy in the U.S. has not changed significantly since the public Old Age and Survivors Insurance program (OASI) was established in 1935. Both then and now the public program provides a minimum level of benefit for the average wage earner. It is expected that employment pension plans and pre-retirement savings will supplement the public benefit. There has long been a commitment to preserving the purchasing power of the public benefit. Between 1954 and 1974 a succession of ad hoc adjustments were made to benefits and the earnings ceilings used to calculate them. In the late 60's and early 70's these adjustments exceeded the rise in the cost of living and were clearly intended to allow benefits to catch up with wage increases. In 1972 and 1973 social security legislation was amended to introduce automatic adjustments to benefits when the increase in the CPI exceeded 3% (the full CPI increase was then applied). As of January 1986 the 3% 'trigger' was eliminated, and adjustments are now provided for any year in which price inflation is greater than zero. However, the commitment to adjusting public pensions has not been extended to the benefits of employment pension plans.

OASI now covers most of the U.S. labour force. The program is designed to replace covered 'indexed' career average earnings on a sliding scale basis; so that replacement rates on low earnings are higher than those on higher (and covered) earnings. The earnings ceiling is adjusted annually to increase in wages. Earnings themselves are indexed to wage increases. For 1987 the earnings ceiling is $43,800. The maximum monthly benefit for a single worker retiring in 1987 is $789 ($9,468 annually), and for a married worker with an eligible spouse $1,184 ($14,208 annually). In December 1986, the average benefit paid to retired workers was $482 and to married workers $832.

As a result of amendments in 1977, the OASI benefit formula was changed in order to bring about a gradual reduction in the replacement rate, which was at its peak in 1981 when benefits replaced 54% of average earnings. Under the legislation now in effect, it is projected that the long-term replacement rate for those retiring at normal retirement age (i.e. 67) will be 53% for low-income earners, 42% for average earners and 28% for higher earners. Current replacement rates for workers retiring at age 65 are slightly higher than this.

OASI is the largest of four programs which together are known as 'Social Security'. The other three are Disability Insurance (DI), Hospital Insurance (HI), and Supplementary Medical Insurance (SMI). These programs pay benefits to workers covered by OASI and the railroad retirement program. OASDI-HI programs are funded by equal employer-employee contributions on a pay-as-you-go basis. The combined contribution rate in 1987 is 11.4% for OASDI and 14.3% for OASDI-HI. SMI is a voluntary program. It is funded by contributions from insured workers and general revenues. The Social Security Act also provides for payments to certain persons over age 72 not otherwise eligible for OASI benefits. This program too is funded by general revenues. In addition, there is a federal income supplementation program (Supplemental Security Income program) for the elderly and the disabled. This is an income-tested program designed to provide a minimum benefit to social security recipients. It is funded by general revenues as well.

Although employment pension plans have been expected to play an important part in the pension system, there seems to have been little inclination on the part of government to define a direction for employment plans, much less to mandate one. Current pension legislation was first introduced in Congress in the late 1960's as a response to particular cases of benefits being lost through bankruptcy, mergers and unscrupulous dealing. The proposed legislation was opposed by many business interests, and it was not until 1974 that the Employee Retirement Income Security Act (ERISA) was finally passed. ERISA establishes minimum standards for plan funding, and sets out a standard of care for those who handle funds. It creates a program to guarantee the payment of benefits when a plan terminates or the employer becomes insolvent. The Act also sets minimum standards for eligibility, vesting, and survivor benefits. It contains no provisions for mandatory coverage. Nor does it

address the issue of inflation protection. It should be remembered that the provisions of ERISA were being debated during the period when OASI payments were given generous adjustments and when it was decided to index them automatically.

Certain pension issues have been the focus of attention in recent years. In the late 70's and early 80's the financial condition of OASDI was a major concern. In 1977 and 1983 amendments were made to the Social Security Act which together are expected to resolve the problem posed by projected increases in program expenditures.

More recently attention has shifted to issues arising from the termination of defined benefit plans. On the one hand, some plans have been found to be seriously underfunded on termination, despite the existence of funding provisions in ERISA. This has meant a significant increase in the deficit of the Pension Benefit Guarantee Corporation (PBGC), the agency responsible for paying benefits where plan funds are inadequate. It has also resulted in losses to some pensioners and actives, since there is a ceiling on the amount of benefit paid by the PBGC. On the other hand, a significant number of employers are terminating overfunded plans in order to recapture surplus assets. In many cases this has adversely affected either the nature of plan coverage, or the size or the security of the benefit. In a number of cases defined benefit plans have been replaced by defined contribution plans. Even when a new defined benefit plan has been established, it may be less well-funded than the old plan. Moreover, credit may not be given in the new plan for the past service which was covered by the old one. If both plans are final average plans, then the total benefit received from the two plans will be smaller than the benefit which would have been received had the first plan not been terminated.

These issues have been under consideration by Senate and House Committees and individual members of Congress since 1984. In 1985, the Administration proposed that surplus withdrawals be subject to an excise tax of 10% (in addition to any income tax which would be imposed). This measure came into effect on January 1, 1986. In 1986 Congress passed a series of amendments to ERISA which were designed to prevent employers from deliberately shifting pension liabilities onto the PBGC.

In March 1987, the Administration made a comprehensive response to both issues in the form of a policy proposal. The proposal consisted of five parts. For the first time employers would be allowed to withdraw surplus assets from ongoing pension plans, provided an adequate financial cushion remained. Employers would be encouraged, through tax incentives, to use a portion of the assets to fund health benefits for existing pensioners. Funding provisions would be made more stringent. Provisions for plan terminations would be changed to increase the chances of plan members receiving their full accrued benefit. The insurance premium rate would be changed from a flat rate to a variable rate which would take the plan's funding level into consideration.

The House Ways and Means Committee has drafted counter-proposals to the Administration's policy. As well, individual members of Congress have presented bills in response to the proposals.

Plan terminations are bound up with the issue of inflation protection. When plans are terminated, liabilities are paid off by purchasing annuities from insurance companies. From then on there is no fund against which pensioners can claim if they should seek an adjustment to their benefits. However, neither Congress nor the Administration seems willing to address the problem of inflation protection directly. It is interesting that the Administration's proposals do not involve tax incentives to employers who adjust benefits. Some members of Congress and the Senate have fought to prohibit the recapture of surplus on termination. They have argued that the basic principle of ERISA -- to maintain assets for the exclusive benefit of plan beneficiaries -- extends to surplus assets. They point out that surpluses could be used to fund benefit adjustments (and to improve benefits). But this is as far as they go.

B The Old Age and Survivor Insurance Program

Old Age and Survivor Insurance (OASI), is one of four programs for the elderly and the disabled which make up the federal Social Security system. The other programs are Disability Insurance (DI), which pays benefits to disabled workers and their dependents, and the Hospital Insurance (HI) and Supplementary

Medical Insurance (SMI), which pay for the health care expenses of those covered by OASDI (and workers covered by the railroad retirement program).[1] Participation in OASDI-HI is compulsory for almost all U.S. workers, compulsory coverage having been extended in 1983 to the few groups which had not been covered before, such as federal employees. Participation in SMI is voluntary. About 95% of elderly and 90% of the disabled do in fact choose to be covered.

Apart from the Social Security programs there is a federal income supplementation program for the elderly, the Supplemental Security Income program (SSI), which in effect tops up social security income to a specified level. This program is financed through general revenues.

Unemployment insurance is the joint responsibility of the federal government and the individual states, which all have established programs in co-operation with the federal government. These programs are financed by employer contributions. The states are primarily responsible for workers' compensation programs. (The federal government, of course, is responsible for its own employees.) All but three states require such programs, which for the most part are administered by insurance companies. The programs provide short and long-term benefits. In most states they are also financed wholly by employer contributions.

(i) Old Age Benefits[2]

The full retirement benefit is payable at age 65, and a reduced benefit at age 62. There are supplements for spouses, who must be at least 62 or caring for a dependent child, and for dependent children themselves. To qualify for the benefit employees must have made the required minimum contributions each year since 1950 and before age 62.

The benefit is designed to replace 'indexed' covered earnings on a sliding scale basis. The benefit for a single employee is known as the 'primary insurance amount' (PIA) and is calculated in the following way. Covered earnings are adjusted to changes in average wages. The five years of lowest earnings are dropped out. The adjusted earnings for the remaining years are totalled and divided by the number of months in those years. The resulting amount is called the 'average indexed monthly earnings' (AIME). The PIA is the sum of

three separate percentages of portions of the AIME. For 1987 the PIA is 90% of the first $310 of the AIME, 32% of the AIME between $311 and $1,866 and 15% between $1,867 and the ceiling, which is $43,800.[3]

The bases for determining the earnings ceiling and the levels used to calculate the PIA are fixed amounts which since 1982 are each adjusted by different measures based on changes in average total wages. (However, the adjustments come into effect only if the automatic adjustment of benefits to the CPI is in effect.) The earnings ceiling is about 2-1/3 times the average total wage.

Full supplementary benefits for a spouse and children are 50% of the employee's PIA. However, total family benefits cannot exceed a maximum amount. This amount is calculated according to a formula similar to that used to obtain the PIA. The maximum benefit in 1987 for a single pensioner retiring in that year is $789 per month ($9,468 per year). The maximum family benefit is $1,380 per month ($16,560 per year). In December 1986, the average benefit for a single pensioner was $482 and $832 for a pensioner and spouse.[4]

Reduced benefits are available from age 62. The reduction for a retired worker is 5/9% per month (6-2/3% per year). The reduction is greater for a spouse. There are increases for delayed retirement between the ages of 65 and 70 at the rate of 7/24% per month (3.5% per year). Amendments made to the Social Security Act in 1983 change the provisions for normal retirement age and the concomitant provisions for reduced and increased benefits. These will be discussed further on.

Benefits are subject to an earnings test for beneficiaries between the ages of 62 and 69.[5] Those under age 65 may earn $480 per month (in 1987) before benefits are reduced. Those between 65 and 69 may earn $680 per month. The tax-back rate is 50%. This rate will gradually decrease for those above normal retirement age.

(ii) Survivor Benefits[6]

All survivors (including divorced spouses if the marriage lasted 10 years) aged 60 and over are eligible. Disabled survivors are eligible from age 50. The full benefit is 100% of the deceased employee's PIA at age 65 and is payable to

survivors at age 65. The benefit is reduced by 5.7% per year for each year below 65. Children under 18 or between 18 and 19 and attending secondary school fulltime receive 75% of the employee's PIA at age 65. There are also benefits for dependent parents. Survivor benefits are subject to the maximum family benefit ceiling.

(iii) Benefits for Certain Persons Aged 72 and Over[7]

The provisions governing these benefits are transitional. They are intended to provide a pension for those who had reached the age of 72 before 1972 and were unable to qualify for OASDI benefits. Qualifying pensioners receive a flat-rate benefit which was $140.30 per month as of December 1986.

(iv) Replacement Rate

From the beginning OASI's benefit formula was designed with a sliding scale in order to replace more income for lower earners. The present formula was introduced in 1977 in order to reduce replacement rates for those with average or higher earnings.[8] The long-term replacement rate based on the new provisions was projected to be 53% for a low income employee retiring at age 65, 42% for an average earner, and 28% for an employee with earnings at the ceiling. Amendments in 1983 would raise the retirement age to 67.[9] Replacement rates are projected to remain the same using the higher age assumption. At present replacement rates are somewhat higher than the long-term projections.[10]

(v) Adjustments to Benefits[11]

Until 1975, benefits were adjusted from time to time by special legislation. As the Table 1 shows, in the late 60's and early 70's benefit increases far exceeded CPI increases. This clearly indicates an intention to allow pensioners to share in the rise in living standards experienced by active workers.

TABLE 1

INCREASES IN SOCIAL SECURITY BENEFITS AND THE CONSUMER PRICE INDEX

Effective date of increase	Increase in benefit level	Increase in CPI from last effective date of benefit increase[1]
Before automatic indexing		
September 1954	13%	0.5%[2]
January 1954	7	8.0
January 1965	7	7.8
February 1968	13	9.3
January 1970	15	10.8
January 1971	10	5.2
September 1972	20	5.9
June 1974	11[3]	16.4

1 Computed from not seasonally adjusted data for urban wage earners and clerical workers.

2 Increase in CPI from September 1952, the previous date benefits were increased.

3 Effective in two steps - a 7% increase in March 1974 and a 4% increase in June 1974.

Source: Neil A. Stevens, 'Indexation of Social Security Benefits - A Reform in Need of Reform', Federal Reserve Bank of St. Louis, June/July 1981, p. 4.

In 1972 and 1973, legislation was passed which provided for automatic annual adjustments whenever the increase in the CPI (as determined by provisions set out in the legislation) was 3% or more. The 3% provision served as a trigger only; the adjustment was the full increase in the CPI. In 1983, amendments were made to the adjustment mechanism to slow down benefit increases. In 1986 the 3% trigger was eliminated; adjustments are now made annually whenever CPI increases are greater than zero.

(vi) Financing[12]

OASDI benefits are funded mainly by equal employer-employee contributions on a pay-as-you-go basis. Some payments are made from general revenues to cover past service for former members of the armed forces (who were not required to contribute until 1957), and to cover benefits paid to those persons age 72 or older who are not eligible for OASDI benefits. Total government payments for these two groups in 1980 were 0.5% of the total program revenues.

HI benefits are similarly funded. SMI benefits are funded by contributions from insured persons and governments revenues, with the government paying more than half of the cost of the program.

Contribution rates for OASDI-HI are set by legislation. There is a contribution ceiling, which is equal to the pensionable earnings ceiling. For 1987 the combined contribution rate for OASI is 10.4%, for DI 1.0%, and for HI 2.9%. The combined rate for OASDI-HI is then 14.3%. As a result of the 1983 amendments OASDI rates are scheduled to rise to 12.4% (combined) by 1990. There are as yet no future increases legislated for HI.

With respect to state programs, the contribution rate for unemployment insurance depends on the unemployment benefit experience of each enterprise. There is an earnings ceiling which in 1985 was $7,000 for the federal portion of the program. Rates vary between 0 and 10.5%, the average rate being about 3.1% in 1985. Contribution rates for workers' compensation programs also vary with the nature of the industry and the experience of the employer. Contributions are based on total payroll. In 1985 employers paid on average slightly less than 2% of payroll.

(vii) The 1983 Amendments[13]

The 1980 Annual Report of the Board of Trustees of the OASDI funds predicted that the OASI fund would face both a short-term and a long-term financing problem. Estimates were that the fund would have a deficit of about $64 billion by the end of 1986. The deficit would dissipate in the 1990's as a result of scheduled increases in contributions pursuant to amendments made in 1977. However, another deficit would emerge after the year 2000 due to the increasing number of elderly. The Report concluded that a solution to the long-term deficit would require larger increases in contribution rates than those already scheduled, or a reduction in promised benefits.

In 1983 amendments to the Social Security Act were passed which were designed to address both the short-term and the long-term problem. The amendments included the following provisions.

For increasing revenues:

- Increases in contribution rates scheduled pursuant to the 1977 amendments would be accelerated.
- Individuals with income other than social security benefits of $25,000 or more, and families with income of $32,000 would be taxed on half the social security benefits received.
- Certain groups not previously covered would be brought into the program, i.e., federal employees (hired after December 31, 1983), employees of nonprofit organizations.

For reducing benefit expenditures:

- The age of eligibility for full benefits would be raised gradually to 67 between the years 2000 and 2022. Reduced benefits would continue to be available from age 62 at an ultimate rate of 70% of the full benefit.
- The benefit adjustment for those who delay retirement beyond the normal retirement age would be increased from 1986 on to reach 8% per year after 2004.
- The tax-back rate on earnings after retirement would be reduced to 33-1/3% in 1990.

> If trust fund levels should become dangerously low in a year (as defined) benefits would be indexed by the lower of a wage or price index. Increases reduced in this way could be restored if trust fund assets reached adequate levels (as defined).

C Employment Pension Plans

(i) *The Employee Retirement Income Security Act*

Employment pension plans are regulated by the Employee Retirement Income Security Act (ERISA) (and by tax provisions, but these will not be discussed here). The Act came into effect in 1974, and was the first piece of legislation of its kind. ERISA was introduced to prevent the recurrence of benefit losses resulting from the insolvency of the employer, business mergers, and unscrupulous dealing on the part of those who managed plan funds. The proposed legislation was passed after 7 years of lobbying on the part of organized labour, who supported it, and many business interests, who opposed it.[14]

ERISA establishes minimum funding standards. It contains provisions to protect plan assets. The Act requires assets to be held to provide benefits exclusively to plan participants and their beneficiaries, subject to provisions with respect to plan terminations.[15] Those who have decision-making power over the fund are subject to the same standards of care as a trustee under trust law: they are required to act 'solely in the interest of the plan participants and the beneficiaries', using the 'care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims'.[16] There are also disclosure requirements with respect to the financial activities of the plan. In addition to protecting assets, ERISA establishes a program to guarantee the payment of pension benefits if the plan is found to be underfunded on termination.

ERISA is not primarily concerned with benefit standards. It does have rules governing eligibility and vesting. Coverage is not mandatory. There are no provisions regarding the adjustment of benefits for inflation.

(ii) Coverage

One study estimates that 45% of all workers and 52% of full-time workers in the private sector were members of pension plans in 1982.[17] Using the same data another study indicates that membership is generally confined to medium-sized and large firms.[18]

Pension coverage has become a matter of some concern. According to the Employee Benefit Research Institute coverage has dropped overall, due to the 1982-83 recession.[19] Jobs shifted from older industries, where unions were prominent, and which traditionally offered pension plans, to service industries, which were not unionized, were often smaller enterprises, and which were less likely to provide plans. Various measures concerning coverage have recently been under consideration in Congress. They include amendments to ERISA designed to extend coverage where plans are already established, and even to mandate coverage where no plan exists.[20]

(iii) Adjustments to Benefits[21]

Employers are not required to index benefits. However, some do so voluntarily. The most comprehensive assessment of the degree to which benefits are indexed is a study of adjustments over the period between 1973 and 1979 prepared for the U.S. Department of Labour. The data reveal that while adjustments were relatively widespread, the largest and most frequent increases were confined to large plans, especially those which were collectively bargained.

Almost all of the adjustments in the study were ad hoc. Three-quarters of all pensioners received at least one increase, 1/4 received an increase every year. Pensioners receiving benefits from smaller plans (defined in terms of the number of pension recipients, not active employees) were more likely to receive no adjustment: 83% of plans with between 1 and 99 recipients, and 61% of plans with between 100 and 499 recipients gave no increases. These percentages decline dramatically as plan size rises. Almost all large plans with over 10,000 beneficiaries granted some increase. The average benefit in plans with less than 100 recipients increased by 3.5% between 1973 and 1979; benefits in medium-

sized plans (between 100 and 9,999 recipients) increased 10% to 21%. Plans with over 10,000 recipients increased benefits by 36.2% during the period.

Consumer prices increased by 63.3% between 1973 and 1979. In no case did adjustments equal price increases, and so the purchasing power of pensions declined. For persons in the smallest plans, the average benefit declined by 36.6%, in medium-sized plans the real value of the benefit fell by about 30% on average. The real value of benefits in the largest plans fell by 16.6%.

Recipients of pensions from collectively bargained plans fared better than others. Eighty percent received at least one adjustment in benefits in the period under review, compared to 68% for non-union workers; almost 40% received an increase every year, compared to 2% for non-union workers. The average benefit increased by 28.6% compared to 18.5% for those in other plans. The effect of union membership is concentrated in the large plans. Non-union plans with between 100 and 4,999 recipients provided larger increases than collectively bargained plans. However, in collectively bargained plans with more than 10,000 recipients, the average benefit increased by 42.2% compared to 27.1% in non-union plans. This represented 2/3 of the rise in the CPI.

(iv) Plan Terminations[22]

Two pension issues of major concern are the termination of underfunded plans (in industries which are declining), and the termination of overfunded plans in order to obtain the surplus. Terminations of underfunded plans have resulted in significant increases in the deficit of the Pension Benefit Guaranty Corporation (PBGC), the agency responsible for the administration of the benefit insurance program. The deficit has almost doubled in the last 7 years and is now $4.2 billion. The terminations have also hurt active workers and pensioners, since the full benefit promised by the plan may not be protected.

Employers terminate plans which are in surplus because ERISA does not permit the withdrawal of funds from an ongoing plan. ERISA does, however, provide for the 'reversion' of assets to employers on plan termination. On the basis of a number of court cases it is generally held that the decision to terminate a plan, even when the intent is to use surplus funds for business purposes

(rather than for the direct benefit of pensioners and actives), is not a breach of the fiduciary provisions of ERISA.

Terminations of ongoing plans may have harmful effects. Liabilities for retirees and active workers are usually paid off with annuities purchased through an insurance company, or sometimes with a lump sum payment. For pensioners this means that there is no longer any fund against which they can claim an adjustment to their benefits. Active workers may also be adversely affected. Terminated defined benefit plans may be replaced with defined contribution plans. Even when they are replaced by other defined benefit plans, the plans may be less well funded. If both new and old plans are final average plans, the pension produced by the annuity and the new plan will be less than the pension which would have been produced had the old plan not been terminated. The reason for this is that the higher earnings which the employee can expect in later years will apply only to the years of service in the new plan. Of course, concern over the recapture of surplus is not confined to the consequences of plan termination. Many argue that all plan assets rightfully belong to plan beneficiaries because plan contributions are deferred wages, and that the business decision to terminate a plan must be subject to these considerations.

Since 1984, these issues have received a great deal of attention from members of Congress and the U.S. Administration. In 1985, the President proposed that all pension funds reverting to the employer be subject to a 10% excise tax. The tax would be in addition to any income tax payable, it would not be deductible for income tax purposes, nor could it be offset by tax losses, deductions or credits. Legislation to this effect came into force in January 1986. In 1986 also, a number of amendments were made to ERISA in order to make it more difficult for employers to deliberately terminate plans and shift the responsibility for benefit payments to the PBGC. However, the problems posed by plans which were underfunded because the employer was in serious financial difficulties remained.

In March 1987, the Administration presented a comprehensive policy proposal designed to address both sets of issues. The proposal consisted of five parts. With respect to plan underfunding, the proposal contained a number of measures to tighten up contribution requirements, and to increase funding requirements for certain defined benefit plans. As a second step, the funding

requirements for plans terminating voluntarily would be increased. At present funds must have enough assets to pay the benefits guaranteed by the PBGC as well as some additional benefits, such as early retirement supplements and plant closing benefits. The proposal would require plans to have enough assets to meet all pension promises (up to the time of termination). Plans which were in financial difficulties would be allowed to terminate even if they could not meet this test, but they would be liable for the full amount of the termination liability. Third, the PBGC premium rate structure would be changed from a flat rate to a variable rate, the amount being dependent on the plan's funding status. Plans with liabilities in excess of 125% of plan assets would be forced to pay higher premiums.

Two parts of the Administration's proposal were devoted to the withdrawal of surpluses. For the first time employers would be allowed to take surplus assets out of an ongoing plan. However, they could do so only if the assets in the plan and in all other plans under the control of the employer exceeded a certain amount, which in general would be 125% of plan liabilities as calculated on a termination (not an ongoing) basis. Limits would be put on the frequency of surplus withdrawals and plan terminations. An employer who recovered the entire surplus would not be allowed to make another withdrawal or terminate another plan for 10 years. An employer would be allowed to recover surplus in installments over a 10 year period, but in this case the employer would be restricted to three withdrawals or terminations during that period. The second measure was an incentive to use at least some of the surplus for current pensioners: an employer would be permitted to transfer all or some of the assets available for withdrawal to a welfare benefit trust to provide medical benefits to current pensioners. Assets transferred in this way would be exempt from income tax, and would not be subject to the 10% excise tax on asset withdrawal.

All these proposals have received much criticism. Congress has begun hearings on the Administration's proposal and is considering other bills on the subject. A Subcommittee of the House Ways and Means Oversight committee has already formulated counterproposals. With respect to surplus withdrawals, the Subcommittee proposes to continue to restrict withdrawals to plan terminations. Reversions would be subject to a 20% excise tax, however, unless funds were transferred to an employee stock option plan. If the

employer creates another defined benefit plan to cover substantially the same group of workers, the employer would be required to establish an asset cushion in the new plan equal to the lesser of the funds which were withdrawn or 125% of the termination liability. In April 1987, Rep. Edward R. Roybal introduced a bill to prohibit reversions altogether, and to revise the fiduciary provisions of ERISA to make it clear that in no case were plan funds to be used other than for the benefit of plan members and beneficiaries. The Subcommittee did not endorse the plan to allow surpluses to be used to fund health benefits for retirees.

IV FEDERAL REPUBLIC OF GERMANY

A Summary

> 'In the Federal Republic of Germany, old-age pension schemes are regulated in different ways -- both from the financial and institutional point of view -- for various employee groups; this means that there are, in part, significant differences in the levels of income of which persons or survivors of protected persons are assured. There are also considerable differences of opinion as to whether a satisfactory level of income can or should be ensured for the elderly by a single old-age pension scheme or from a combination of several schemes. Last, but not least, the institutions and regulations for old-age pensions differ between the private and public sectors of the economy.'*

The pension system in the Federal Republic of Germany consists of a statutory old age, survivors' and disability insurance scheme (the statutory scheme) which is compulsory for most workers, with the important exception of civil servants and the self-employed; a separate pension scheme for civil servants; a system of employment pension plans for all workers in the public sector who are not civil servants; and employment plans in the private sector which are regulated but not mandated. As a result workers in the public sector, 27% of all employed

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* *Winfried Schmaehl, 'Public and Private Pensions for Various Population Groups in the Federal Republic of Germany: Past Experience and Tasks for the Future', International Social Security Review, No. 3, (1986), p. 258.*

persons in 1981, are covered by rather generous schemes, while many workers in the private sector may be covered only by the statutory scheme.

The statutory scheme is one of five social security programs, the others being health and unemployment insurance, compensation for injured workers and family allowances. In its present form the scheme dates from 1957. The retirement benefit is earnings-related, and is calculated as 1.5% of covered 'assessed' (adjusted) earnings for each contribution year. There are minimum and maximum earnings levels. The maximum benefit in 1985 was DM 36,584 ($17,100) per year.

An essential element of the statutory scheme from its beginning has been the principle that pension benefits, as well as the earnings on which initial benefits are calculated, should be adjusted to increases in wages. It was expected that wage increases over the years would allow workers to retire with a pension equal to at least 50% of the average gross wage in the years immediately preceding retirement, and this expectation was incorporated into the legislation. The adjustment of benefits was intended to act as a compensating mechanism to dampen the effects of recession. However, the persistent recession of the 70's, a small working population, and rising pension costs have resulted in changes to the scheme. Between 1978 and 1982, the indexing mechanism was suspended in favour of ad hoc adjustments. In 1984, the legislation was amended to eliminate the reference to the 50% replacement rate. The principle that benefits be adjusted to wage increases was retained; however, by administrative decree future adjustments were to be indexed to net wages (net of income tax and social security contributions) rather than gross wages. It is expected that this measure will soon become a statutory provision. Between 1980 and 1986, the average pension at retirement has ranged between 44.2% and 45.4% of final gross earnings and between 62.9% and 65.2% of final net earnings (up to the maximum benefit).

The statutory scheme is financed by equal employer-employee contributions and by government revenues on a pay-as-you-go basis. Since 1978, there has been an effort to increase revenues as well as reduce expenditures. The earnings ceiling for contribution purposes has been made to increase faster than the earnings ceiling for benefit purposes. In 1985, the contribution ceiling was DM 64,800 ($30,300) a year, and the benefit ceiling DM 54,198 ($25,350) a year.

Contribution rates have risen significantly. Rates were at their highest between June 1985 and December 1986 when the combined rate was 19.2. The current combined rate has been reduced to 18.7%, and is fixed at that percentage until 1989.

The civil service scheme is more generous than the statutory scheme. It pays a retirement pension of 75% of final earnings to workers with 35 contribution years. Benefits are indexed to growth in wages (in recent years net, rather than gross, wages). Mandatory employment plans in the public sector use these provisions as a model of income replacement. Although plans differ for manual and non-manual workers, all plans are designed to top up the statutory pension to achieve an income replacement rate similar to that received by civil servants. Thus plans will provide a benefit of up to 20% of final earnings at or below the ceiling of the statutory scheme, and up to 75% of final earnings above the ceiling, after a full career. Benefits are also indexed to wage increases. In German pension literature, this type of plan is known as an 'integrated pension scheme' (Gesamtversorgungssystem). There has been some criticism of public sector plans for providing pensions which are too rich; that is, together with the statutory pension the benefits turn out to replace significantly more than 100% of final earnings net of taxes. In January 1985, a collective agreement between management and unions in the public sector came into effect which will eventually limit the replacement level of the combined statutory and employment plan benefits to 91.75% of final net earnings.

About half the workers in the private sector are covered by employment pension plans. Coverage differs significantly for male and female workers, and for workers in small and medium-sized firms (up to 500 workers) and those in large firms. Moreover, employment plans vary widely with respect to the benefits they provide. The number of employment plans, especially integrated plans, grew rapidly in the early 70's when labour was scarce and business prospects were good. However, this trend has not continued, and in recent years plans are being closed to new entrants or newly hired employees are allowed to join on less favourable terms.

Government policy with respect to private sector employment plans poses a number of problems for employees, pensioners and employers which have yet to be resolved.

Tax provisions applicable to private sector employment plans are unique among the countries discussed in this study in that they act as a bar to the establishment of properly funded plans. Employers are not required to establish or make use of a fund; however, if they choose to do so they may not be allowed to deduct their full service costs, as determined by actuarial assumptions. Plans with funds are in fact permanently underfunded.

Employment plans in the private sector are directly regulated by the Act to Improve Company Pension Plans (Gesetz sur Verbesserung der Betrieblichen Altersversorgung). The legislation first came into effect in 1974, and was intended to promote the growth of private sector plans. The provisions of the Act are not overly onerous. Coverage is not mandatory. Existing plans are not obliged to cover part-time workers. Portability is not encouraged. There are no provisions with respect to replacement rates or survivor benefits. Employers are not required to fund plans as security for plan liabilities; however, they must at least account for liabilities by setting up book reserves, and vested benefits -- and only these -- must be insured against insolvency. There is a minimum vesting requirement, which encourages long service.

Interestingly enough there is also a provision regarding the adjustment of benefits. To paraphrase the relevant section of the Act, every three years employers are required to examine the possibility of adjusting benefits. Their decision must be made on the basis of equity; in particular it must take account of pensioners' interests as well as the economic situation of the employer. The wording of the provision leaves most of the important issues in this area unanswered: what index to use; whether anything short of full indexation is permissible; whether the choice of funding vehicle makes a difference (in some cases benefits are secured through insurance companies); whether increases in the statutory pension affect the decision; what constitutes ability to pay. As a result all these issues have had to be decided by the labour courts.

The courts have issued a number of decisions regarding benefit adjustments, not all of which have been consistent. However, as of 1986, the law seems to be the following. If the company is financially healthy it should make up for the full loss of purchasing power in the previous three years based on the standard of living index for a 4-person household with medium income. Adjustments may be limited to the increase in average net wages over the same

period, if this is lower. The increase in the statutory pension cannot be used to offset the adjustment due on the employment pension, even if the total amount of adjustment exceeds the rate of inflation. Firms in financial difficulties may provide a lesser adjustment. This requirement applies to all benefits, no matter how they are funded, including those provided through insurance annuities.

There is evidence that many companies have ignored the requirement to adjust benefits so far, especially the smaller ones. Others have attempted to make up some of the liability resulting from the past by giving adjustments of up to 25% of the required amount. Still others have complied with earlier court decisions which held that an adjustment equal to 50% of the rise in the cost of living was adequate. The adjustment of pension benefits is not a matter for co-determination, the process which allows labour unions some measure of decision-making power with employers over workers' rights and their enforcement. This may be why the adjustment provision is being ignored. The issue is not under government review.

B Public Old Age Survivors' and Disability Insurance

The public pension scheme, referred to in German pension literature as the 'statutory scheme' (Gesetzliche Rentenversicherung), covers salaried and hourly workers only, with the exception of civil servants. Those covered account for about 87% of the labour force.[1] The plan was introduced in 1957. It reformed pension policy, which had previously been directed towards relieving poverty on retirement. Two major changes were effected: benefits were doubled, and they were 'dynamised' -- indexed to provide workers earning the average wage with a pension equal to 50% of final earnings, and all pensioners with a benefit which would rise with wages. The statutory scheme is one of five programs which make up the social security system. The others are medical and unemployment insurance, workers' compensation, and family allowances.

(i) *The Old Age Benefit*[2]

The full benefit is payable at age 65 provided that minimum contributions have been made for at least 15 years. It is calculated as 1.5 times 'assessed' or adjusted earnings for each contribution year. Assessed earnings are determined in the following way. The ratio of actual earnings to average earnings is calculated for each year. The average of all these ratios is determined. The resulting ratio is applied to an amount called the 'general computation base' (Allgemeine Bemessungsgrundlage). This is a measure of average wages near the time of retirement. There is an earnings ceiling, which is twice the GCB. In 1985, the ceiling was DM 54,198 ($25,350) and the maximum benefit DM 36,584 ($17,100) per year.[3]

A reduced benefit is available from age 63, however, the employee must have made the required contributions for 35 years. There are special provisions which allow the disabled, certain long-term employees with low earnings, and the recently unemployed to receive a benefit from age 60. All benefits received before age 65 are subject to an earnings test. Retirement may be delayed to age 67 with an increase of .6% for each month (7.2% for each year) benefits are postponed.

(ii) *Survivor Benefits*[4]

Prior to 1986 survivor benefits were for the most part restricted to widows. Under much-discussed amendments, which were finally introduced in 1986, either spouse is eligible. A full benefit is 60% of the deceased's benefit entitlement (a full career is assumed). There is a supplement of DM 200 (in 1986) for each dependent child. Benefits are subject to an earnings test. Earnings include such earnings substitutes as sick pay, workers' compensation, the statutory pension, civil service pensions, and pensions paid by plans for self-employed professional groups. Other employment pensions, including public sector pensions, do not count as earnings. In 1986, the earnings ceiling was DM 900. The tax-back rate, which is being phased-in, will be 40% by 1995.

(iii) Replacement Rate/Adjustments to Benefits

The principle of adjusting benefits to wage increases both at the time of retirement and after retirement is central to the statutory scheme. As was pointed out above, when the benefit formula -- incorporating the general computation base (GCB) -- was designed in 1957, it was intended to provide an initial pension which would replace at least 50% of the final earnings of an average wage earner with a full career. This provision was written into the legislation.[5] One of the reasons for deciding to increase the purchasing power of benefits after retirement was to allow them to act as a compensating mechanism to dampen the effects of recession. The GCB was initially designed with a time lag of 2-1/2 to 3-1/2 years between current wages and pension increases to smooth out fluctuations.[6]

The government was forced to reconsider this design when the plan experienced financial difficulties in the 1970's.[7] At that time the wage base was reduced and plan contributions were low: the number of people of working age was relatively small as a result of low birth rates during the two world wars, and unemployment was high. However, pension costs were increasing, due to an aging population, and the introduction of flexible retirement provisions. In 1978, the government introduced a number of proposals to alleviate the situation. Among them was the decision to cap pension adjustments, temporarily for the period 1979-81. In 1978, the GCB was not increased at all, and increases were limited to fixed amounts between 1979 and 1981. Ad hoc measures in fact continued until 1984. As well, the GCB was changed to reduce the time lag between benefit adjustments and current wage increases.

In 1984, long-term decisions were made about the structure of the plan.[8] The principle of adjusting benefits to wages was retained. However, the formula would be based on changes in net wages (net of income tax and social security payments) rather than gross wages. The reference to a 50% replacement rate was dropped from the legislation. The decision to adjust benefits to net wages has been implemented by administrative decree. It is expected to be incorporated into legislation in the near future.

Between 1980 and 1987, the average benefit replaced between 44.2% and 45.4% of final gross wages up to the benefit ceiling, and between 62.9% and 65.2% of net wages.

It should be noted that benefit adjustments after retirement are not automatic. They must be approved by Parliament annually after an advisory council has reviewed the finances of the social insurance system and the state of the economy, and has submitted a report.[9]

(iv) Financing

The statutory scheme is funded by equal employer-employee contributions and by government subsidies on a pay-as-you-go basis.[10] As a result of the 1978 proposals the contribution ceiling has increased faster than the benefit ceiling, and rates have increased significantly. Government subsidies are supposed to be based on a rigid formula, however, in practice the policy has been to allow the government to reduce or defer payment when necessary.[11] Contribution rates reached a peak in the period between June 1985 and December 1986, when the combined rate was 19.2%. The current combined rate is 18.7% and will remain fixed at that percentage until 1989. In 1985 the contribution ceiling was DM 64,800 ($30,300) for the year. In the same year the government subsidy was about 15% of total plan costs.

Health and unemployment insurance are also funded by employer-employee contributions. (Pensioners contribute to health insurance coverage as well.) In 1985 employees paid 3.5% to 7.5% of covered earnings for health insurance, according to the fund, and 2.05% of earnings for unemployment insurance. Employers paid 3.5% to 9.8% of payroll for health insurance and 2.05% for unemployment insurance. The earnings ceiling for health insurance is 75% of the pension contribution ceiling. For unemployment insurance it is equal to the pension ceiling. Only employers contribute to workers' compensation. The rate varies according to the risk. In 1985, the average contribution was 1.5% of payroll. Family allowance benefits are paid for by government revenues.

In short, in 1985 employees contributed a maximum of 19.5% of earnings towards all social security programs. Employers contributed a maximum of 21.45% <u>excluding</u> payments for workers' compensation.

C Civil Service and Public Sector Plans

Civil servants, who in 1981 constituted 10% of all salaried and hourly workers, have long been singled out as a special group. The Constitution of the German Federal Republic specifically refers to the 'traditional principles of the professional civil service'.[12] The Federal Constitutional Court has held that state provision for civil servants and their families is an obligation of a different kind from state responsibility for the welfare of society in general. Accordingly, civil servants have their own pension plan which is separate from the statutory scheme. The plan is designed to replace 75% of gross final earnings after 35 years of service.[13] Benefits are indexed to wage increases (in recent years to increases in net wages).[14]

All other public sector employees (17% of all employees in 1981) are subject to the statutory scheme.[15] However, pursuant to collective agreements statutory pensions are supplemented by employment plans. These plans are intended to top up the statutory pension to achieve income replacement levels similar to that of the civil service plan. Plans differ for manual and non-manual workers. However, most plans provide pensions of up to 20% of final earnings up to the earnings ceiling of the statutory plan, and up to 75% above the ceiling, after a full career. This type of plan design -- that is, the commitment to replacing a specific percentage of final earnings, taking the statutory scheme into account -- is referred to in German pension literature as an 'integrated pension scheme' (Gesamtversorgungssystem).

Public sector plans have recently been criticized for being too generous, in that in many cases combined statutory and employment pensions have significantly exceeded final after-tax salaries. In response to this criticism a collective agreement was signed which restricts the combined pension to 91.75% of final net earnings (as determined by standard assumptions). The agreement came into force in 1985. It is being phased-in. Its full effect will only be felt by those who retire from the beginning of the next century.

D Private Sector Employment Pension Plans

The importance of private sector employment plans to the German pension system is not clear.[16] In 1982, 50% of all male retirees and 14% of all female retirees who previously worked in the private sector received employment pensions. Very few (6% of the men) received integrated pensions; most received flat benefits (a simple fixed amount or a fixed amount related to years of service). The results of a 1982 sample survey of retired men between the ages of 66 and 67 gives an indication of the additional contribution which private employment pensions made to pensioner income: 44% received the statutory pension of DM 1607 ($820) per month and no employment pension; 14% received a public sector pension as well, the average benefit being DM 559 ($290) per month; and 42% received a private sector pension, the average benefit being DM 329 ($170) per month.

The prospects for future retirees are uncertain. The number of private sector plans started to grow in the early 1970s, when labour was in short supply and economic prospects were favourable. However, growth was not uniform, with middle-sized and larger firms (over 500 employees) being much more likely to have a plan than smaller firms. Integrated plans were mostly confined to large undertakings (over 1,000 employees). More men tended to be covered than women. Growth has not continued into the 1980s. Increasingly, plans have been closed to new entrants, or newly-hired employees have been offered membership on less favourable terms.

Government regulation of private plans has been minimal, a policy which has not favoured employees. Regulation has also posed problems for employers, however. One area which has been a cause of concern is the adjustment of pension benefits.

(i) Act to Improve Company Pension Plans

Private sector plans are regulated by the Act to Improve Company Pension Plans (Gesetz sur Verbesserung der Betrieblichen Altersversorgung)[17] and by tax provisions. The Act was introduced in 1974 with the intention of encouraging

the growth of employment plans.[18] No comparable legislation had existed previously.

Very few standards are mandated.[19] There are no requirements with respect to portability, coverage of part-time workers, replacement rates, or survivor benefits. Employers are expected to amend their plans to remove gender-based eligibility requirements for survivor benefits, in conformity with the statutory scheme, but this too has not been mandated. There is, however, a minimum vesting requirement, which encourages long service: pensions vest at age 35 with 10 years of service under the plan, or after 12 years of service with 3 years under the plan regardless of age. Few employers choose to provide earlier vesting. There is also a provision for adjusting pensions in pay. This will be discussed in the next section.

With respect to financing, employers are not required to establish or make use of a fund to secure benefits. Four financing methods are permitted. The most popular is to set up a book reserve for plan liabilities. No assets need be ear-marked for the reserve, nor do plan members have priority ranking over creditors in the event of insolvency. However, vested benefits must be insured against insolvency through an agency created by the Act to administer the scheme. Premiums are compulsory; the rate for 1985 was 0.14% of the reserve attributable to vested liabilities. Two other methods involve the use of certain types of independent financial institution. The fourth is direct insurance through an insurance company. These are often used in combination with the book reserve system.

(ii) Adjustments to Benefits

The Act to Improve Company Pension Plans contains the following provision:

> 'At three-yearly intervals, an employer shall examine the possibility of adjusting regular benefits provided under (the plan) and shall reach his decision on the basis of equity; the decision shall more particularly take account of pensioners' interests and the employer's economic situation.'[20]

The provision is in keeping with the rest of the Act in not setting fixed rules. However, while it may have been intended that a consistent and acceptable

practice for adjusting benefits would evolve of itself, this has not been the case. Over the years the labour courts have had to resolve the issues which the legislation leaves undetermined: what index to use; whether anything short of full indexation is permissible; whether benefits guaranteed by an insurance company should be treated differently; whether adjustments to the employment pension should take adjustments to the statutory pension into account; what constitutes ability to pay.

The court decisions have not always been consistent.[21] As of 1986 the law seems to be the following. If the company is financially healthy it should make up for the full loss of purchasing power in the previous three years, based on the standard of living index for a 4-person household with medium income. However, adjustments may be limited to the increase in average net wages over the same period, if this is lower. Firms in financial difficulties may provide a lesser adjustment. The increase in the statutory pension cannot be used to offset the adjustment due on the employment pension, even if the total amount of adjustment exceeds the rate of inflation. All plans are subject to these requirements, regardless of how they are financed.

One publication indicates that a number of companies have ignored the requirement to index benefits up to now, in particular the smaller domestic ones.[22] Others have attempted to make up some of the past liability by giving adjustments of up to 25% of the required amount. Still others have complied with earlier court rulings which held that an adjustment of 50% of the rise in the cost of living was adequate. The adjustment of pension benefits is not a matter of co-determination, the process which allows labour unions some measure of decision-making power with employers over workers' rights. Thus enforcement of the provision must be carried out by pensioners themselves, either by approaching the former employer or initiating a court action. Perhaps this is why it is being ignored. At the time of writing the matter is not under government review.

(iii) Tax Legislation[23]

Tax policy with respect to employment plans seems to have been developed independently of pension policy. Tax provisions do not encourage the building

up of adequate funds, or even the acknowledgement of the full extent of pension liabilities. For example, tax authorities define the basis -- including the interest rate -- on which allocations to the book reserve are to be calculated for the purposes of obtaining a deduction; actuarial judgement on assumptions or methods is not taken into account. Contributions to independent funds are similarly arbitrarily limited. In particular, prefunding of liabilities for future adjustment is not allowed; an allocation is deductible from the date the adjustment is made. As a result, pension funds do not have sufficient assets. And in the past, failure to make adequate disclose of pension liabilities has imposed significant costs on the pension insurance fund. This last problem may have been corrected with the passing of a new financial reporting law for stock companies.

V FRANCE[1]

A Summary

What marks the French pension system is its treatment of employment pension plans. Coverage is mandatory, which is rare among all western industrial countries. However, what is unique is the collective nature of the contractual arrangements. Plans are organized into two systems, each of which is financed on a pay-as-you-go basis. Transfers are effected among plans, and so among active employees, as well as between actives and pensioners. As a result, accrued pensions and pensions in pay are both indexed to wages, as are benefits in the public plan. The term 'solidarity' is often used when referring to these plans, with good reason.

The decision to fund public plans and contractual arrangements on a pay-as-you-go basis was made soon after the end of the Second World War. The fluctuations in capital markets and the high inflation experienced in the period between the wars had made decision makers wary of funded schemes. Moreover, it was considered important to guarantee that benefits would not lose their purchasing power, and to give credit for years of service which predated the

introduction of the plans. These considerations were thought to make a pay-go system almost obligatory.

Basic pension benefits for most wage earners are provided by the public old age insurance program, the Caisse nationale d'assurance vieillesse des travailleurs salaries (CNAV). There are separate plans for selected groups of workers: civil servants, miners, agricultural workers, and so on. The general scheme is designed to produce a benefit equal to 50% of earnings averaged over the 10 best years after a full career. There is an earnings ceiling and a minimum benefit. The earnings ceiling is adjusted to reflect wage increases, as are benefits. In July 1985, the earnings ceiling was Fr 108,720 ($16,670), which was about 1.45 times the average wage. The maximum benefit for that year was Fr 56,878 ($8,720). In 1983 the retirement age was reduced from 65 to 60.

The CNAV is normally financed wholly by employer/employee contributions. Employers pay more, although increases have been borne by employees alone since 1979. In 1985 the contribution rate was 5.7% of earnings for employees and 8.2% of payroll for employers up to the pension benefit ceiling. (Employees also paid an extra 0.1% of total earnings for a special survivor benefit.) The employee rate has increased since then. The latest increases were introduced as an emergency measure in July 1987. Employees now pay 6.6% of earnings; employers continue to pay 8.2%.

There are two other social insurance programs: health insurance, and the family allowances program, which provides a variety of benefits for families with children, including a guaranteed minimum family income. Health insurance is financed by both employer and employee contributions, as well as by government revenues. Family allowances are financed by employer contributions alone. In 1985 employers paid 29.8% of payroll for all social security programs, employees paid 11.3%. Workers' compensation is financed apart from the rest of the system, as are unemployment insurance programs.

Employment pension plans are a hybrid of contractual arrangements and public scheme. There are two systems of plans for wage earners. One is for certain groups of managers and technical and professional salaried workers ('cadres'). It is administered by an association of member plans, l'Association generale des institutions de retraites des cadres (AGIRC). The other system is for the rest of the workforce, with some exceptions (these workers are covered

by other schemes). It is administered by ARRCO (Association des regimes de retraites complementaires). These arrangements were developed through national collective agreements. However, they have been given effect and extended by legislation and public decree. Since 1971, plan coverage has been mandatory for all employees, and all employers have been required to affiliate with AGIRC or ARRCO.

Employment plans are intended to supplement the CNAV benefit. AGIRC replaces earnings above the CNAV ceiling up to a maximum of four times the ceiling. ARRCO replaces all earnings up to three times the ceiling, and so tops up benefits for workers earning at or below the ceiling. Although benefits are not calculated as a percentage of earnings, it is believed that public and employment plan benefits together replace about 75% of covered earnings. As has been pointed out above, pensions in pay are adjusted in line with wage increases.

The total contribution rate for plans in the ARRCO system is 4%. Employers are required to pay 60% of the total, or 2.4% of payroll, employees pay 1.6% of earnings. Plans in the AGIRC system are subject to minimum and maximum contribution requirements. The minimum rate for employers is 6% and for employees 2%, the maximum for employers 10% and employees 6%. Both plans have a mechanism (the 'call up rate') for adjusting plan contributions to liabilities. Since 1979, the call up rate, and so the actual contribution rate, has increased significantly.

Of all the countries in this study, France is the only one which did not reduce social security expenditures in response to the energy crises of the 70's. In fact, France increased expenditures. Pension benefits were improved. The most costly change was the lowering of the retirement age, but in addition, the minimum benefit was increased, as were survivor benefits; credits for homemakers were introduced; and the indexing mechanism was changed in order to increase adjustments. Currently, there is grave concern about the financial situation of the public plan. Similar concerns have been expressed about the employment plans. Minor changes have been made to reduce benefit expenditures. Emergency measures have been taken to further increase contribution rates, which have been rising steadily since the mid-70's, and to supplement program funds with tax revenues. A number of proposals have been made for more

permanent changes to the pension system. Some critics have even suggested that France shift to a funded system. However, the debate has really just begun, and policy is yet to be developed.

B General Old Age Insurance Program[2]

The general program, the Caisse nationale d'assurance vieillesse des travailleurs salaries (CNAV), covers most wage earners. There are separate plans for selected groups, such as civil servants, miners, agricultural workers, and so on. In 1983, two-thirds of the French labour force were members of CNAV. There are two other social insurance programs: health insurance, and the family allowances program, which provides a variety of benefits to families with children, including a guaranteed minimum family income. Workers' compensation is regulated and financed under separate legislation, as is unemployment insurance.

All social security programs are financed on a pay-as-you-go basis. Both employers and employees contribute to CNAV, health insurance and unemployment insurance. Only employers contribute to the family allowances program and to workers' compensation. The government pays some of the costs of the health insurance and unemployment insurance programs.

The wisdom of pay-as-you-go financing is currently being debated in France. However, for those responsible for introducing the CNAV in 1945, a pay-as-you-go scheme was 'practically obligatory'.[3] Before the Second World War the public scheme had been funded. However, the fluctuations in capital markets and the high rates of inflation which France experienced in the period between the wars and just after World War II made decision makers wary of funded plans. Moreover, it was considered important to be able to guarantee that benefits would not lose their purchasing power, and to give credit for years of employment which pre-dated the introduction of the plan. For all these reasons, pay-go financing was introduced, and not only for the public plan, but for subsequent contractual arrangements as well.

(i) The Old Age Benefit

The full retirement benefit is designed to replace 50% of earnings averaged over the 10 best years after a full career. There is an earnings ceiling and a minimum benefit. The earnings ceiling is adjusted to reflect increases in wages, as are pensions in pay. In July 1985, the earnings ceiling was Fr 108,720 ($16,670), which was about 1.45 times the average wage for that year.[4] The maximum benefit was Fr 56,878 ($8,720).[5] There is a small income-tested supplement for dependent spouses, and a supplement for pensioners who had or reared 3 or more children.

To encourage early retirement, the normal retirement age has been 60 since 1983. Workers are also required to contribute to the plan for 150 trimesters (37-1/2 years). A trimester 'counts' if contributions for the period equal at least 200 times the minimum hourly wage. (Someone working full-time for a trimester would work 507 hours.) Those with fewer contribution years are heavily penalized. The rate at which covered earnings are replaced is reduced gradually from 50% to a minimum of 25%. The benefit receives a further reduction by being multiplied by the ratio which the number of contribution years bears to 37-1/2. Benefits are not increased if workers have contributed for more than 37-1/2 years. However, if workers retire after age 65, their benefits are increased by 2.5% for every three months (10% for every year) retirement is deferred.

Pensioners cannot work for pay after retirement if they perform the same sort of activities performed before retirement. Pensioners are not prohibited from taking up other employment, however, and the pension is not subject to an earnings test.

(ii) Survivor Benefits[6]

There have been a number of improvements to survivor benefits in the 70's and 80's. The benefit itself has increased, the age at which it becomes payable has been lowered, and criteria for eligibility have been widened. The income

test has become more generous. In addition, a new benefit for younger survivors has been introduced.

Survivors age 55 and over receive a benefit equal to 52% of the pension, or the pension rights, of the deceased spouse. Divorced survivors are eligible if they have not remarried. They share the benefit in proportion to the number of years they were married to the deceased spouse. The benefit is income-tested. Pension benefits are not counted as income, although they are subject to a ceiling.

There is an allowance for survivors under age 55 who have at least one dependent child, or who have reared at least one child. Payments last for three years only and are reduced each year. As of July 1, 1985, the allowance was Fr 2,328 per month ($360) for the first year, Fr 1,529 per month the second year, and Fr 1,166 per month the third year. The benefit is also income-tested.

(iii) Adjustments to Benefits[7]

In the calculation of the initial benefit earnings are adjusted to reflect increases in wages, but the process is subject to ministerial discretion. The latest set of adjustments apply to pensions payable from July 1, 1985. They are designed to boost earnings between 1948 and 1957 considerably (the earnings ceiling for these years is well above the ceiling for 1984). As a result, for many workers retiring between 1985 and 1995, these years will be automatically included in the 10 best.

Pensions in pay are also indexed to wages, but adjustments are made at fixed times, according to a formula set out in legislation. Since 1974, adjustments are made twice yearly, in order to offset rapid price increases. Between the years 1974 and 1984, when prices tripled in France, the purchasing power of the average pension increased about 20%.[8] Recently changes have been made to the indexing formula to slow down the growth in adjustment increases.

(iv) Financing

France, among all the major industrial nations, including Japan, was the only country which accelerated growth in social programs during the recessionary period between 1974-1984. Improvements to pension benefits have been noted in the previous sections. During this time contribution rates for these programs increased by 11.6 percentage points, excluding unemployment insurance contributions, and 18.4 points, including these contributions.[9]

The CNAV is financed wholly by employer/employee contributions. Employers pay more, although since the late 70's it has been government policy to impose contribution increases on employees only. In 1985, the contribution rate was 5.7% of earnings for employees and 8.2% of payroll for employers up to the pension benefit ceiling.[10] Employees contributed an additional 0.1% of total earnings to pay for the allowance for survivors under age 55. The employee rate has increased since then. The latest round of increases were introduced as an emergency measure in July 1987. Employees now pay 6.6% of earnings; employers continue to contribute at 8.2%.[11]

Health insurance is financed primarily by a tax on total earnings-- there is no contribution ceiling -- although the government also contributes through ear-marked taxes and general revenues. In 1985, employers paid 12.6% of payroll, and employees 5.5% of earnings. In July 1987, the employee rate was raised from 5.5% to 5.9%. The employer contribution remains 12.6%.

Employers contributed 9% of payroll up to the pension ceiling for the family allowance program in 1985. Employees are not required to contribute.

To sum up, the contribution rate for all social security programs in 1985 was 29.8% for employers and 11.3% for employees, and it has since increased by at least 1.2 percentage points for employees. In addition, both parties contribute to an unemployment insurance program. The contribution ceiling for that program is four times the pension ceiling. In 1985, employers contributed 4.08% of payroll; employees contributed 1.92% of earnings up to the pension ceiling, and 0.5% of earnings above that. As well, employers are responsible for the whole cost of unemployment insurance. Contributions vary with the risk; the average contribution in 1985 was 3.73%.

Despite the rise in contribution rates, social security programs, and the CNAV in particular, are in deficit. CNAV's deficit grew from Fr 8 billion in 1985, to 15 billion in 1986, and is estimated to reach 13.6 billion in 1987.[12] As part of its emergency measures for reducing the deficit the government has introduced a surtax of 0.4% to be assessed on 1985 and 1986 income but payable in 1987 and 1988. The government has also imposed a surtax of 1.0% on income from property. Monies from the property tax are designated for the CNAV.

The problem of rising pension expenditures is leading France to reassess its pension policies. A number of government studies have been prepared, and a gamut of proposals has been put forward: the reestablishment of the public plan on a funded basis; changes in the benefit structure along the lines proposed for the United Kingdom; changes in the method of benefit adjustment (indexation in line with prices, rather than wages, gross rather than net wages); the implementation of favourable tax treatment for a personal retirement savings vehicle, and so on.[13] The debate has just begun, however, and policy is yet to be developed.

C Employment Pension Plans

(i) History[14]

The French pension system is unique in its treatment of employment pension plans. There are also two plan systems which cover most wage earners (some workers are covered by separate plans). Each is governed by general rules regarding plan benefits and contribution rates, plans may otherwise differ among themselves. Financing is system-wide on a pay-as-you-go basis. This arrangement allows coverage to be mandatory; it also allows benefits to be indexed to wages.

The first system of plans was set up in 1947 by a series of agreements between the three principal unions representing the 'cadres' (certain managerial workers and salaried technical and professional employees) and the CNPF (the National Business Council of France). The agreements were given effect by ministerial decree, and their provisions were incorporated into legislation. An

association of member plans was created to administer the system, l'Association generale des institutions de retraites des cadres (AGIRC). As with the public plan, the impetus behind the arrangements was to devise a system which would preserve and even increase the purchasing power of plan benefits on a regular basis, and allow workers near retirement age to receive a suitable pension without having to rely on the vagaries of a fund to pay for it.

Pay-as-you-go plans for wage earners who were not cadres grew rapidly between 1950 and 1957. In 1957 many of these plans joined together to form an association -- UNIRS -- which, like AGIRC, would allow them to pool experience. It was also intended that UNIRS establish common rules and a single administration for affiliated plans. In 1961, all employers belonging to the CNPF were required to join the UNIRS plan, unless they had set up another arrangement for their workers. At the same time a new coordinating body was set up for all existing plans, including the UNIRS group. This was called ARRCO (l'Association des regimes de retraites complementaires).

In 1972, pension coverage through AGIRC or ARRCO became mandatory for all wage earners who were members of the CNAV.

(ii) Calculating Benefits[15]

Employment plans are intended to supplement the CNAV benefit. AGIRC replaces earnings above the ceiling of the public plan to a maximum of four times the ceiling. ARRCO replaces all earnings up to three times the ceiling, and so tops up benefits for workers earning at or below the ceiling. Full benefits are payable from age 60 after 37-1/2 years of service. Though benefits are not calculated as a percentage of earnings, it is believed that public and employment plan benefits together replace roughly 75% of covered earnings.

Benefits are related to wages and to years of service, although not in ways typical of funded plans. Each year contributors are assigned points in respect of their contributions. Pensions are based partly on the total number of points accumulated during the working lifetime. There are mechanisms to ensure that those who have received equivalent salaries and paid equivalent contributions receive the same number of points. In the AGIRC system, for

example, points are obtained by dividing the year's contributions by the 'reference salary'. This is an index designed to reflect changes in the movement of median salaries above the CNAV ceiling; contributors whose salaries equal the median salary should receive the same number of points each year.

When workers retire, their points are given a value, which is the pension benefit. The value is related to the contributions then being made to the plan (in the case of UNIRS plans, contributions from all plans in the group are taken into account). The points are revalued each year. This measure serves as an automatic adjustment of pension benefits to wages. To limit variation in point value and in the contribution rate, the valuation formula is based on a 10-year forecast of plan contributions and expenditures. If the system is in continuous deficit, it is required by law to reduce benefits (or slow down the rate at which they are revalued), or to increase contributions.

Plans may differ significantly with respect to the ratio of workers to pensioners and with respect to revenues (employer/employee contributions). In turn revenues will depend on the health of the firm and, more generally, of the industry of which it is a part. Plans may also disappear as firms close up. To offset these demographic and economic factors in order to secure the permanence of the system, an equalisation mechanism ('compensation'), designed to redistribute plan revenues, is an essential part of each system. Ensuring equalisation among plans is one of the principal roles of AGIRC and ARRCO.

(iii) Contribution Rates[16]

The total contribution rate for plans in the ARRCO system is 4%. Employers are required to pay 60% of the total, or 2.4% of payroll; employees pay 1.6% of earnings. Plans in the AGIRC system are subject to minimum and maximum contribution requirements. The minimum rate for employers is 6% and for employees 2%; the maximum for employers is 10% and for employees 6%. Both plans have a mechanism (the 'call up' rate) for adjusting contributions to benefit payments. Since 1979, the call up rate, and so the actual contribution rate, has increased significantly. As of 1987, the combined contribution rate for plans in the AGIRC system is increased by 10%.[17] The rate for plans in the ARRCO system is increased by 17.5%, so that the total rate is now 4.7%.[18]

Actuaries in both systems predict the need for continual increases until the end of the century.

VI SWEDEN

A Summary

In Sweden, as in France, public and employment pension plans form an integrated system. The system embodies a commitment to high levels of income replacement for all wage earners, whether they work in the public or the private sector, and whatever their income level. Both elements of the system incorporate a commitment to adjust benefits in pay; however, in the case of employment plans adjustments are made on the basis of surpluses which have developed in plan funds.

The public system consists of two tiers: a basic universal flat-rate benefit available to all resident Swedish citizens (AFP); and a supplementary earnings-related benefit available to all resident workers (ATP). For a single worker retiring after a full career the combined pension replaces about 65% of average earnings over the best 15 years of employment, and for a married worker with a dependent spouse about 80% of earnings, up to a maximum amount. The ceiling on pensionable earnings is fixed at 7.5 times the AFP ceiling. In 1986, this amounted to just over twice the average wage. There are special and generous provisions for disabled workers, as well as provisions which encourage a gradual transition from work to retirement (the partial pension). In 1986, the basic pension was SKr 22,368 ($4,500) and the maximum earnings-related benefit SKr 90,870 ($18,290). The average wage was about SKr 81,415 ($16,390).

Benefits and earnings (in the calculation of the initial benefit) are adjusted to prices. The government temporarily modified the index between 1981 and 1983 by removing indirect taxes, import duties and energy prices. However, it returned to a general consumer price index in 1984.

The basic pension is financed by employer contributions and government revenues on a pay-as-you-go basis. The ATP is financed by employer contributions

on a modified pay-as-you-go basis. Employees are not required to contribute to any social security program. The ATP financing method involves the accumulation of considerable assets -- the largest capital fund in Sweden. Funds are used for investment in both the private and the public sector. Employers have the right to borrow back up to 50% of their previous years' contributions to the plan if they can provide adequate security.

In 1985, the combined contribution rate for the AFP\ATP plans was 19.95% of payroll. Employers must also contribute to the rest of the social security system. Other programs include health and parental insurance (benefits for mothers or fathers who stay home to care for young children), workers' compensation, and family allowances (which are funded by government revenues). Unemployment insurance is provided mainly through union-administered programs, but a government support program is available for employees who are ineligible for the union program. In addition to these contributions, employers are subject to a general wage tax. Employees contribute only to the union-related unemployment insurance scheme. The contribution rate for all social security programs and for unemployment insurance was 30.45% of payroll in 1985.

Employment pension arrangements in Sweden are not infrequently described as being another set of public plans. This shows some misunderstanding of the system, in that the terms of the arrangements are not in fact determined by legislation, nor are the plans directly administered by government agencies, although they are closely regulated by government. As in France, the present system grew out of collective agreements between management and labour. The first agreements were signed in 1960 with private sector salaried workers. The decision was to establish one mandatory uniform plan -- the ITP. In 1971 a second plan was set up for blue collar workers -- the STP/AGS. Again, as in France, affiliation with these plans is made compulsory by law for all employers who are members of the Swedish Employers' Confederation. By collective agreement coverage is compulsory for all employees except for certain categories of senior managers. Besides these two plans, there are mandatory plans, similar to the ITP, for employees in certain industries such as banking and insurance. There is also a plan for state government employees.

The ITP and the STP are designed to supplement the public plans. The retirement benefit replaces an additional 10% of earnings up to the ATP ceiling, 65% of earnings between the ceiling and an amount equal to about 2-2/3 times the ceiling, and 32.5% of earnings above that to a maximum of 4 times the ATP ceiling.

The STP plan is financed through pension insurance. There is a single fund which is administered by an independent agency, the Swedish Staff Pension Society (SPP). In contrast, ITP retirement benefits may be financed through a book reserve system. In this case employers must secure accrued benefits by a credit insurance contract. Book reserve plans are administered by another independent agency, the PRI, which works closely with the SPP. Among other things, the PRI is responsible for calculating the pension liability. ITP survivor pensions and certain other benefits cannot be financed under the book reserve method, however, and must be insured through the SPP. Responsibility for contributions to these funds lies with the employer; employees do not contribute. ITP contribution rates for 1986 were 8.8% of payroll, and STP/AGS rates 5.12% of payroll.

Both plans adjust pensions in pay annually. Adjustments are based on surplus earnings in the relevant insurance funds up to the rise in the consumer price index.

B Public Pension Plans[1]

The public pension system consists of two tiers: a universal, flat-rate benefit, which in its present form has existed since 1946; and an earnings-related benefit, which was introduced in 1960. Other social security programs include health and parental insurance (benefits for working mothers or fathers who stay home to care for young children), workers' compensation, and family allowances. Unemployment insurance is administered mainly through union-related programs, although there is a government support program for those who are ineligible for the programs.

(i) The National Basic Pension (AFP)

The AFP is a flat-rate benefit available to all Swedish citizens resident in the country regardless of income or work history. The benefit is calculated as 96% of a base amount (B) for a single person, and as 157% B for a couple. In 1986 the value of B was SKr 23,300, which was equal to about 29% of the average wage. The AFP was then SKr 22,368 ($4,500) for a single person and SKr 36,581 ($7,360) for a couple.[2]

Normal retirement age is 65, but retirement is flexible between the ages of 60 and 70. The benefit is reduced 0.5% per month (3% per year) for those under 65, and increased 0.6% per month (7.2% per year) for those over 65.[3] Residents with long-term medical disabilities receive a full pension at age 60.

There is a survivor benefit, which is available only to women. The maximum benefit is equal to the retirement pension and is given to widows who are between 50 and 65, or who have dependent children. There are also children's benefits.

(ii) The National Supplementary Pension (ATP)

The ATP covers all persons employed in Sweden regardless of nationality. The plan is designed to produce full benefits after 30 years in the labour force. However, the plan was phased-in over a 20-year period to enable anyone retiring from 1980 on to be eligible for the full benefit.

The maximum benefit is 60% of earnings between B and 7.5B. 'Earnings' are average earnings over the 15 best years of employment. Earnings are adjusted to rises in the cost-of-living by a formula which relates them to the base amount in the year of retirement. For those with less than 30 years of employment the benefit is reduced proportionately. In 1986, the maximum ATP benefit was SKr 90,870 ($18,290), about 1.15 times the average wage in that year.

As with the AFP the ATP retirement age is flexible. The same AFP reductions and increases to benefits are applicable to the ATP.

There is a survivor benefit, which again is only available to widows. It is equal to 35% or 40% of the ATP retirement pension (with the assumption of

a full career), subject to age conditions and the existence of dependent children. Benefits fixed in relation to B are also payable in respect of children under age 19.

(iii) The Partial Pension

In 1976, a special 'partial pension' program was introduced to encourage a gradual transition from labour force activity to retirement. The program is open only to those who earn no more than the ATP ceiling (mostly blue collar workers). Workers must reduce their work time by at least 5 hours per week, but must work at least 17 hours per week. The benefit is equal to 50% of the difference between their full and reduced earnings.

(iv) Replacement Rate

The AFP and ATP together replace about 65% of earnings up to 7.5 times the base amount B. B is not itself formally related to wages, although it is indexed to prices. In 1986 the average wage was about SKr 81,415 per year; B was SKr 23,300; and the ATP ceiling was SKr 174,750, roughly 2.15 times the average wage.

The government is prepared to respond to what are perceived to be imbalances between pensions and the earnings of active workers. Between 1975 and 1980 the real income of active workers decreased steadily, while the purchasing power of pensions was preserved. As a result, in 1981 the government introduced measures to slow down the relative growth of pensions.[4] However, in 1986 the consumer price index fell markedly, while wages rose by 7% on average in the private sector.[5] In the same year the formula for the basic benefit was increased by one percentage point for a single worker and 2 percentage points for a couple.

(v) Adjustments to Benefits[6]

Both the base amount, which is used in calculating the initial retirement benefit, and pensions in pay are adjusted to price increases. The index is the general consumer price index.

Between 1981 and 1983, the index was modified to exclude import duties, energy prices and indirect taxes. As was mentioned above, prices, and so pensions, had increased faster than wages in the period between 1975 and 1980. A large portion of the increase was due to the high cost of imported oil, and to the measures the government had taken to reduce Sweden's trade deficit. The different rate of income growth between pensioners and active employees was considered to be undesirable in itself. It was also believed that the modified price index was a more appropriate cost-of-living standard. To further reduce pension costs the method for adjusting the base amount was changed in 1982. Before that year the base amount was adjusted whenever the price index changed 3 percentage points from the last adjustment. In that year, the 'trigger' was removed, and the adjustment was made annual.

A new government was elected in 1982 which pledged to reinstate the old indexing system. In 1984, the general consumer price index was brought back into use; however, no changes were made to the provisions for adjusting the base amount.

(vi) Financing

The AFP is financed on a pay-as-you-go basis by employer contributions and government revenues. In 1985, the contribution rate was 9.45% of payroll. The government contribution amounted to 25% of plan costs.[7]

The ATP is a modified pay-as-you-go plan. Contributions are required of employers only. In 1985, the contribution rate for all benefits, including the partial pension, was 10.5% of payroll.

Contribution rates have been designed to create a large[8] reserve fund. At the end of 1978 assets equalled 1/3 of Sweden's GNP. The fund is expected to expand up to the turn of the century. Administration of the fund is decentralized by dividing it into three sub-funds which are distinguished by the economic sector from which contributions originate: public sector; private sector firms with 20 or more employees; self-employed, and private sector firms with less than 20 employees. The investments of these funds are limited to debt instruments. However, the funds are allowed to make loans to private sector employers through certain financial intermediaries. Employers have the

right to borrow back up to 50% of their previous years' contributions to the ATP, provided they can offer adequate security. A fourth fund, introduced in 1974, was set up to make equity investments in Swedish firms. In 1984 yet another set of funds was set up to provide venture capital.[9]

This financing arrangement has not escaped criticism, especially from the business community. As of 1981, at least, employers were not making use of the ability to borrow from the fund, apparently because the process was too complicated. The fourth fund has invested only in the most substantial of Swedish businesses. The venture capital funds were evaluated in 1985 and were deemed to have failed to provide the intended capital.[10]

Health and parental insurance and workers' compensation are financed mainly by employer contributions on a pay-as-you-go basis. In 1985 the contribution rate was 9.5% of payroll for health insurance and 0.6% for workers' compensation. Government revenues covered about 15% of the cost of the health and parental benefit program. The contribution rate for the union-related unemployment insurance program was 0.4% of payroll for that year. Insured workers paid SKr 1.50 - 40 ($0,30 - 8.00) per month, depending on the fund.

C Employment Pension Plans[11]

The present system of contractual pension arrangements grew out of collective agreements between management and labour. The first agreements were signed in 1960 with private sector salaried workers. The decision was to establish one mandatory uniform plan -- the ITP. Similar arrangements were made for blue collar workers in 1971 through the STP/AGS plans. Employers who are members of the Swedish Employers' Confederation are required by law to be affiliated with either or both plans. By collective agreement all their employees must be covered except, with respect to the ITP plan, for certain categories of senior management. Firms which are not members of the Employers' Confederation include banks and insurance companies. Employees in these industries are covered by special plans similar to the ITP. State government

employees also have their own plan. Some small firms fall outside the system, however. In 1986, 90% of Swedish employees were covered by these arrangements.

(i) The ITP

The ITP retirement benefit is designed to supplement the ATP by topping up earnings below the ATP ceiling and providing replacement income above the ceiling to a maximum amount, which is equal to 30B or 4 times the ATP ceiling. The maximum benefit is expressed as a percentage of earnings as follows: 10% of earnings up to 7.5B; plus 65% of earnings between 7.5B and 20.0B; plus 32.5% of earnings between 20.0B and 30.0B. Earnings are final earnings at age 65, but salary increases in the last five years of employment which exceed rises in the cost of living will not be counted. The qualifying period for a full pension is 30 years. Normal retirement age is 65, but a component of the plan allows workers to take early retirement without reduction from age 62.

The plan provides a number of other benefits. A survivor pension is payable to both widows and widowers. The benefit is equal to 50% of the retirement pension in excess of 7.5B (assuming a full career). To provide additional income in cases of death before age 55 there is a group life insurance component. There is also a disability benefit and a partial pension.

The rights to most of the benefits under the plan, including the retirement benefit, vest from age 28.

(ii) The STP/AGS

The STP plan provides the retirement pension, the AGS plan sickness and disability benefits. The retirement pension tops up earnings below the ATP ceiling. The benefit is 10% of average earnings in the best three years between ages 55 and 59.[12] Retirement age is 65. There are no early retirement provisions. There is no survivor benefit. Group life insurance is provided, however.

(iii) Voluntary Employee Benefit Plans

These plans cover the few employees to whom the ITP/STP arrangements do not apply, as well as the senior managers who choose to drop out of the ITP plan. The plans are not governed by collective agreement, and are not bound by any statutory requirements, other than tax provisions.

(iv) Financing

Both STP and AGS plans are financed by employer contributions through insurance contracts with the Swedish Staff Pension Society (SPP). Employers may choose to finance the ITP retirement pension through a book reserve system. Book reserve plans are administered by an independent agency, the PRI, which works closely with the SPP. Among other things the PRI is responsible for calculating the pension liability. In addition, vested benefits must be secured by credit insurance. The ITP disability benefits, survivor pension and group life insurance must be funded through insurance arrangements with the SPP.

The 1986 contribution rate for the ITP plan (together with the life insurance component) was 8.8% of payroll. The combined contribution rate for the STP/AGS plans was 5.12% of payroll.[13]

(v) Adjustments to Benefits

ITP and STP benefits must be adjusted annually. The amount of the adjustment is determined by the Board of the SPP, and is based on surpluses in the relevant insurance funds. Adjustments cannot exceed the increase in the base amount. In 1986 ITP pensions in pay were increased by 6.7%, as were ITP vested benefits. STP pensions in pay were increased by 6.9%, the base amount increase.[14]

There are no requirements for adjusting benefits in voluntary pension arrangements.

NOTES

I Introduction

1. Holzmann, p. 4. For projections of pension expenditures in the 21st century. See Heller, Hemming and Kohnert.

2. Holzmann, p. 4. These countries will continue to spend significantly less than France, the Federal Republic of Germany and Sweden in the future. See Heller, Hemming, Hemming and Kohnert.

II The United Kingdom

1. The information in this paragraph is taken from United Kingdom, Secretary of State for Social Services, vol. 3, (June 1985), pp. 99-108.

2. Callund, p. 06-17-09. Ł1.0 = $1.9045 Cdn. The figure has been calculated by the writer as the average for 1985 and 1986, because almost all amounts are for the taxation year 1985-1986.

3. The information in this section is taken mainly from United Kingdom. Secretary of State for Social Services, vol. 3, (June 1985), p. 103, and from Callund, pp. 06-17-(10-11). Other sources are noted separately.

4. United Kingdom, Secretary of State for Social Services, vol. 2, (June 1985), p. 3.

5. The information in this section is taken mainly from United Kingdom, Secretary of State for Social Services, vol. 2 (June 1985), pp. 1-2, and vol. 3, (June 1985), p. 113. Other sources are noted separately.

6. Callund, p. 06-17-13.

7. United Kingdom, Secretary of State for Social Services, vol. 3, (June 1985), pp. 103 and 116; Callund, pp. 06-17-(15-17).

8. Callund, p. 06-17-09.

9. Information in this section is taken from Wartonick and Packard, pp. 13-14.

10. Information in this section for the year 1985-86 is taken from Callund, p. 06-17-06; and for the current year from Lourie, p. 8.

11. United Kingdom, Secretary of State for Social Services, vol. 3, (June 1985), p. 104.

12. United Kingdom, Secretary of State for Social Services, vol. 1, (June 1985), p. 21.

13. Calculated from Table 5.1, United Kingdom, Government Actuary, p. 26.

14. Information in this section is taken from Callund, pp. 06-17(39-41).

15. Information in this section is taken from United Kingdom, Secretary of State for Social Services, (December 1985), p. 5 and from Callund, p. 06-17-03.

16. Information on employer practices is taken directly from United Kingdom, Government Actuary, pp. 57-60, or calculated by the writer on the basis of data provided in Tables 9.1 and 9.2, pp. 58 and 59, respectively. Information on the tax treatment of surpluses is taken from United Kingdom, Finance Act, Schedule 12 (Pension Scheme Surpluses), pp. 330-35, and especially the General Notes, pp. 331, 332, 333 and 335.

17. Information on the Green Paper proposals is taken from United Kingdom, Secretary of State for Social Services, vol. 1, (June 1985), pp. 21-25, and vol. 2, (June 1985), pp. 3-7.

18. Information on the White Paper proposals is taken from United Kingdom, Secretary of State for Social Services, (December 1985), pp. 3-5 and pp. 12-19. For more information on personal pensions and opting-out conditions for defined contribution plans and personal pensions see Lourie.

III The United States

1. Information in this section is taken from International Labour Organization: Financing Social Security: The Options, pp. 110-115, unless otherwise noted.

2. Information in this section is taken from United States, Department of Health and Human Services, (November 1986), pp. 4-9, and from United States, Department of Health and Human Services, (July 10, 1987), pp. 6-7, and p. 14 unless otherwise noted.

3. All amounts in this part of the Study are expressed in terms of U.S. dollars.

4. Data on the maximum 1987 benefit and 1986 average monthly benefits were obtained through a telephone conversation with an official in the Office of the Actuary, Social Security Administration, (July 20, 1987).

5. Information in this section is taken from United States, Department of Health and Human Services, (November 1986), p. 14.

6. Information in this section is taken from United States, Department of Health and Human Services, (November 1986), pp. 11-13.

7. Information in this section is taken from United States, Department of Health and Human Services, (November 1986), p. 13.

8. Heller, Hemming and Kohnert, pp. 34 and 72.

9. United States, 'Social Security Reform', (April 1983), p. 101.

10. Telephone conversation with an official in the Office of the Actuary, Social Security Administration, (July 20, 1987).

11. Information in this section is taken from United States, Department of Health and Human Services, (November 1986), p. 16.

12. General information on financing is taken from International Labour Organization: Financing Social Security: The Options, pp. 11-113. Information on 1985 contribution rates is taken from United States Department of Health and Human Services, Social Security Programs Throughout the World - 1985, pp. 270-271. Information on 1987 contribution rates is taken from United States, Department of Health and Human Services, (November 1986), pp. 15 and 18.

13. Information on the OASDI deficit is taken from Stevens, pp. 3-4. Information on the 1983 amendments is taken from, United States, 'Social Security Reform', (April 1983), pp. 102 and 104-5, and 128.

14. United States, 'The Pension System: Can Its Promises Be Kept?', (April 11, 1987), p. 648.

15. Section 403(1)(c).

16. Section 404(1)(b).

17. Ippolito and Kolodrubetz, p. 53.

18. Cooper, p. 228.

19. As reported in Ippolito and Kolodrubetz, pp. 107 and 108, and in Cooper, p. 228.

20. Cooper, p. 240.

21. Information in this section is taken from Ippolito and Kolodrubetz, pp. 177-209.

22. Information in this section is taken from the following sources: Schmitt and Solomon (August 14, 1987); United States, Department of the Treasury, (March 1987); United States, President of the United States, (May 1985); Solomon, (October 18, 1984).

IV Federal Republic of Germany

1. Schmaehl, p. 87.

2. Information with respect to calculating the benefit is taken from International Labour Organization: Pensions and Inflation, p. 20, and Wartonick and Packard, pp. 14-15. Information regarding the reduced benefit (also known as the 'flexible retirement benefit') was obtained during two telephone conversations with an official in the International Social Policy Branch of the Ministry for Labour and Social Affairs on July 30, and August 4, 1987.

3. IDM = $0.5086 Cdn (1982); $0.4677 Cdn (1985); $0.6425 Cdn (1986).

4. Information in this section is taken from 'West Germany', International Benefit Guidelines, pp. 73-4, para. 3.1.

5. Information obtained during two telephone conversations with an official in the International Social Policy Branch of the Ministry for Labour and Social Affairs on July 30 and August 4, 1987.

6. United States, Senate Special Committee on Aging, (1981), p. 37.

7. Information in this paragraph is taken from Wartonick and Packard, p. 15.

8. Information on changes in 1984 and data with respect to replacement rates were obtained during two telephone conversations with an official in the International Social Policy Branch of the Ministry for Labour and Social Affairs on July 30 and August 4, 1987.

9. International Labour Organizations: Pensions and Inflation, p. 20, and Wartonick and Packard, p. 15.

10. General information on financing and 1985 data are taken from United States Department of Health and Human Services, Social Security Programs Throughout the World - 1985, pp. 94-95. Data regarding contribution rates between 1980 and 1987 were obtained during two telephone conversations both an official in the International Social Policy Branch of the Ministry for Labour and Social Affairs on July 30 and August 4, 1987.

11. United States, Senate Special Committee on Aging, p. 28.

12. Report on the Situation of the Elderly in Federal Republic of Germany, (May 1982), p. 15.

13. Schmaehl, p. 259.

14. Information obtained during two telephone conversations with an official in the International Social Policy Branch of the Ministry for Labour and Social Affairs on July 30 and August 4, 1987.

15. Information in this and succeeding paragraphs in this section is taken from Schmaehl, pp. 259-60, and 268-269.

16. Information in this section is taken from Schmaehl, pp. 260-265, and 269-271.

17. Writers' translation. The Act is often referred to in the literature as the Company Pension Act, or a variant.

18. Schmaehl, p. 272.

19. Information on the legislative provisions of the Act generally is taken from 'West Germany', International Benefit Guidelines, pp. 73-76.

20. This very literal translation is to be found in International Labour Organization: Pensions and Inflation, pp. 65-66.

21. Information on court decisions is taken from Statutory and Private Benefits - West Germany, William M. Mercer International, pp. 8-9, and from two telephone conversations with an official in the International Social Policy Branch of the Ministry for Labour and Social Affairs on July 30 and August 4, 1987.

22. Statutory and Private Benefits - West Germany, William M. Mercer International, p. 8.

23. Information in this section is taken from Schmaehl, pp. 271-273, and from Kleylein, pp. 9-10, and p. 14.

V France

1. The primary source for the material on retirement plans both public and private is Chadelet and Pellissier.

2. Chadelet and Pellissier, pp. 9-38.

3. Chadelet and Pellissier, pp. 7-8; pp. 39-40.

4. 1 Fr = $Cdn 0.1533. The average wage is calculated by the writer as Fr 75,020. Calculations are based on the average hourly wage for non-agricultural activities in 1985, assuming 2,000 hours worked per year.

5. Calculated by the writer using Table 9, and the earnings ceiling for July 1985, which is not adjusted, Chadelet and Pellissier, p. 21.

6. Chadelet and Pellissier, pp. 25-27.

7. Chadelet and Pellissier, pp. 20-21; pp. 33-34.

8. Dumont, p. 8 and Table 6, p. 9.

9. Dumont, pp. 2-4; pp. 15-17.

10. Information on social security contribution rates for 1985 is taken from United States Department of Health and Human Services, Social Security Programs Throughout the World - 1985, pp. 86-7.

11. Information on social security contribution rates for 1987 is taken from 'France', International Benefits Information Service, p. 10.

12. Cendron, p. 22.

13. See Brocas; Cendron, p. 23; Herzlich, Parant.

14. Chadelet and Pellissier, pp. 39-42; pp. 56-61.

15. The explanation of how benefits are calculated is taken from International Labour Organization: Pensions and Inflation, pp. 50-62, and Chadelet and Pellissier, p. 47.

16. Chadelet and Pellissier, pp. 43-44 and pp. 58-59.

17. Parant, p. 77.

18. 'ARRCO Makes Changes to Improve Finances', Ibis Review, p. 21.

VI Sweden

1. Information for all sections on the public plans is taken mainly from Dellgren and from 'Sweden', International Benefit Guidelines. Other sources are noted separately.

2. Skr 1 = $0.2013 Cdn (3rd Quarter 1986).

3. Canada, Health and Welfare Canada, p. 22.

4. Wartonick and Packard, p. 13.

5. OECD Economic Outlook, p. 122.

6. This information on adjustments is taken from Wartonick and Packard, pp. 12-13.

7. Information on social security rates is taken from United States Department of Health and Human Services, Social Security Programs Throughout the World - 1985, pp. 242-3.

8. Information on the reserve fund is taken mainly from Daly. Other sources are noted separately.

9. 'Sweden', International Benefit Guidelines, para. 1.0, p. 183.

10. 'Sweden', International Benefit Guidelines, para. 1.0, p. 183.

11. Information for all sections on employment pension plans is taken mainly from Dellgren and from 'Sweden' International Benefit Guidelines. Other sources are noted separately.

12. Canada, Health and Welfare Canada, p. 25.

13. SPP Konsult AB, 'Employers Contributions 1986 Under Collective Agreement for Salaried Employees', 'Contribution Rates in 1986 to AMF Insurances'.

14. SPP Konsult AB, 'Pension Supplements from SPP and PRI'; Pension Supplements to STP Pensioners'.

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